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DICTIONARY FILE UPDATES: 3 JUN 2002 HIGHEST RN 425364-64-3

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Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 11:22:08 ON 05 JUN 2002
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FILE COVERS 1907 - 5 Jun 2002 VOL 136 ISS 23
FILE LAST UPDATED: 3 Jun 2002 (20020603/ED)


This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> D QUE

L4 26517 SEA FILE=REGISTRY ABB=ON 103.10.3/RID -
L5 1307 SEA FILE=REGISTRY ABB=ON L4 AND 1-20/SI
L6 669 SEA FILE=HCAPLUS ABB=ON L5
L7 3 SEA FILE=HCAPLUS ABB=ON L6 AND ?MEMBRANE?
L8 21688 SEA FILE=HCAPLUS ABB=ON L4
L9 486 SEA FILE=HCAPLUS ABB=ON L8 AND ?SILOXAN?
L10 4 SEA FILE=HCAPLUS ABB=ON L9 AND ?MEMBRANE?

*ring identifiers for
rev
claim 1*



L11 1626 SEA FILE=HCAPLUS ABB=ON L8 AND (?SILYL? OR ?SILANE?)
 L12 11 SEA FILE=HCAPLUS ABB=ON L11 AND 2MEMBRANE?
 L13 13 SEA FILE=HCAPLUS ABB=ON L7 OR L10 OR L12

=> D L13 ALL 1-13 HITSTR

13 CA references with the desired
 ring, siloxane +
 utility

L13 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:107756 HCAPLUS

DN 136:170063

TI Separation of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liquid absorbent

IN Witzko, Richard; Bier, Christian

PA Germany

SO U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. Ser. No. 254,056, abandoned.

CODEN: USXXCO

DT Patent

LA English

IC ICM B01D053-14

NCL 095178000

CC 51-5 (Fossil Fuels, Derivatives, and Related Products)

Section cross-reference(s): 1, 48, 59

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002014154	A1	20020207	US 2001-870198	20010530
	DE 19639965	A1	19980402	DE 1996-19639965	19960927
	WO 9813124	A1	19980402	WO 1997-EP5293	19970926

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

PRAI DE 1996-19639965 A 19960927

WO 1997-EP5293 W 19970926

US 1999-254056 B2 19990430

DE 1997-19704508 A 19970206

AB One or more gaseous components are removed from a gas stream, in which the gas stream is brought into contact with a layered **membrane** on a first side and the liq. absorbent is in contact with a second side opposite to the first side, wherein said **membrane** has a dense polymeric coating layer with a fractional free vol. in the range of 20-45% on a porous carrier layer. The invention is also directed to a process for the desorption of the gaseous components from the liq. absorbent, as well an app. for the sepn. of the gaseous component and an app. for the desorption of the gaseous component.

ST layered **membrane** natural gas sepn; waste gas sepn layered **membrane**; air cleaning layered **membrane**

IT Fluoropolymers, uses

RL: DEV (Device component use); USES (Uses)

(expanded; sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT **Membranes**, nonbiological

(layered; sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT Air purification

Waste gases

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT Natural gas, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 9002-84-0, Polytetrafluoroethylene

RL: DEV (Device component use); USES (Uses)

(expanded; sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 9003-07-0, Polypropylene

RL: DEV (Device component use); USES (Uses)

(porous **membrane**; sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 335-36-4, Fluorinert FC-75 **498-66-8D**, Norbornene, polymers, fluorine-contg. 37626-13-4D, polymers 87842-32-8, Poly(1-trimethylsilyl-1-propyne)

RL: DEV (Device component use); USES (Uses)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 7727-37-9, Nitrogen, miscellaneous

RL: MSC (Miscellaneous)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 124-38-9, Carbon dioxide, processes 7446-09-5, Sulfur dioxide, processes

RL: REM (Removal or disposal); PROC (Process)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT 141-43-5, Monoethanolamine, uses 7757-83-7, Sodium sulfite

RL: TEM (Technical or engineered material use); USES (Uses)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

IT **498-66-8D**, Norbornene, polymers, fluorine-contg.

RL: DEV (Device component use); USES (Uses)

(sepn. of gaseous components from a gas stream, e.g., natural gas or waste gas, with a liq. absorbent)

RN 498-66-8 HCAPLUS

CN Bicyclo[2.2.1]hept-2-ene (9CI) (CA INDEX NAME)

L13 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:300572 HCAPLUS

DN 134:297907

TI Process for removing and recovering of phenolic compounds from aqueous fluids

IN Zhang, Shengfu; Arcangeli, Jean-Pierre; Livingston, Andrew Guy; Boam, Andrew Timothy

PA Membrane Extraction Technology Limited, UK

SO PCT Int. Appl., 45 pp.

CODEN: PIXXD2

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

DT Patent
 LA English
 IC ICM B01D061-24
 ICS C02F001-44; C07C037-70
 CC 48-1 (Unit Operations and Processes)
 Section cross-reference(s): 38, 39, 45, 60
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028666	A1	20010426	WO 2000-GB3902	20001011
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	GB 2355455	A1	20010425	GB 2000-2303	20000201
	GB 2355455	B2	20010905		
PRAI	GB 1999-24724	A	19991019		
	GB 2000-2303	A	20000201		
AB	A process for removing and recovering one or more undissociated phenolic compds. dissolved in aq. fluid comprises the steps of: (a) transferring the one or more undissociated phenolic compds. from the aq. fluid, to an alk. stripping soln., wherein transfer of the one or more undissociated phenolic compds. from the aq. fluid to the alk. stripping soln. occurs across a membrane ; wherein the membrane is a nonporous, selectively permeable membrane ; (b) regulating the vol. of alk. stripping employed relative to the vol. of aq. fluid treated so that the total phenolic compd. concn. in the alk. stripping soln., comprising the sum of the dissocd. and undissociated phenolic compd. concns., is above the soly. of the phenolic compds. in the acidified stripping soln. of step (d); (c) regulating the pH of the alk. stripping soln., in contact with the membrane to a value at least 0.5 pH units above the acidic dissocn. const. of the phenolic compd.; (d) adjusting the pH of the phenolic compd. contg. alk. stripping soln. to a value below the alk. dissocn. const. of the phenolic compd.; and (e) sepg. the resulting phenolic compd. rich phase and the alk. stripping soln.				
ST	phenolic compd removal recovery aq fluid				
IT	Nitrile rubber, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (butadiene, membranes ; process for removing and recovering of phenolic compds. from aq. fluids)				
✓ IT	Polysiloxanes , uses RL: TEM (Technical or engineered material use); USES (Uses) (elastomers, membranes ; process for removing and recovering of phenolic compds. from aq. fluids)				
IT	Acrylic rubber Butadiene rubber, uses Butyl rubber, uses EPDM rubber Epichlorohydrin rubber Fluoropolymers, uses Natural rubber, uses Neoprene rubber, uses Urethane rubber, uses RL: TEM (Technical or engineered material use); USES (Uses) (membranes ; process for removing and recovering of phenolic				

- comps. from aq. fluids)
- IT Filters
(microfilters, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT **Membrane** filters
(nanofiltration; process for removing and recovering of phenolic comps. from aq. fluids)
- IT Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT Synthetic rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoctenamer, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysulfone-, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT **Membranes**, nonbiological
Ultrafilters
Wastewater treatment
(process for removing and recovering of phenolic comps. from aq. fluids)
- IT Phenols, processes
RL: PUR (Purification or recovery); REM (Removal or disposal); PREP (Preparation); PROC (Process)
(process for removing and recovering of phenolic comps. from aq. fluids)
- IT Silicone rubber, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(process for removing and recovering of phenolic comps. from aq. fluids)
- IT **Membranes**, nonbiological
(reverse-osmosis; process for removing and recovering of phenolic comps. from aq. fluids)
- IT 9003-17-2
RL: TEM (Technical or engineered material use); USES (Uses)
(butadiene rubber, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT 9010-85-9
RL: TEM (Technical or engineered material use); USES (Uses)
(butyl rubber, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT **25038-76-0**, Polynorbornene 31900-57-9,
Polydimethylsiloxane
RL: TEM (Technical or engineered material use); USES (Uses)
(elastomers, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT 9002-84-0, Ptfе 9002-88-4, Polyethylene 9003-07-0, Polypropylene 24937-79-9, Pvdф
RL: TEM (Technical or engineered material use); USES (Uses)
(**membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT 9010-98-4
RL: TEM (Technical or engineered material use); USES (Uses)
(neoprene rubber, **membranes**; process for removing and recovering of phenolic comps. from aq. fluids)
- IT 9003-18-3
RL: TEM (Technical or engineered material use); USES (Uses)

(nitrile rubber, butadiene, **membranes**; process for removing and recovering of phenolic compds. from aq. fluids)

IT 106-51-4P, 2,5-Cyclohexadiene-1,4-dione, processes 108-95-2P, Phenol, processes 120-83-2P, 2,4-Dichlorophenol 1300-71-6P, Dimethylphenol 1319-77-3P, Cresol 1321-10-4P, Chlorocresol 12385-08-9P, Benzenediol 25154-55-6P, Nitrophenol 25167-80-0P, Chlorophenol 25167-81-1P, Dichlorophenol 32762-51-9P, Bromophenol

RL: PUR (Purification or recovery); REM (Removal or disposal); PREP (Preparation); PROC (Process)

(process for removing and recovering of phenolic compds. from aq. fluids)

IT 1305-62-0, Calcium hydroxide, uses 1310-58-3, Potassium hydroxide, uses 1310-73-2, Sodium hydroxide, uses 7647-01-0, Hydrochloric acid, uses 7664-38-2, Phosphoric acid, uses 7664-93-9, Sulfuric acid, uses 7697-37-2, Nitric acid, uses 7727-37-9, Nitrogen, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(process for removing and recovering of phenolic compds. from aq. fluids)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Carr, R; US 4597875 A 1986 HCAPLUS

(2) Fritzsche, A; US 4082658 A 1978 HCAPLUS

(3) Hamilton, C; US 3931000 A 1976 HCAPLUS

(4) Ho, S; US 5507949 A 1996 HCAPLUS

(5) Ho, S; US 5552053 A 1996 HCAPLUS

(6) Livingston, A; US 5585004 A 1996 HCAPLUS

(7) Monsanto Co; GB 1480018 A 1977 HCAPLUS

(8) Mullins, F; GB 2207064 A 1989 HCAPLUS

IT 25038-76-0, Polynorbornene

RL: TEM (Technical or engineered material use); USES (Uses)

(elastomers, **membranes**; process for removing and recovering of phenolic compds. from aq. fluids)

RN 25038-76-0 HCAPLUS

CN Bicyclo[2.2.1]hept-2-ene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 498-66-8

CMF C7 H10

L13 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 2000:175507 HCAPLUS

DN 132:223567

TI Polysiloxane semipermeable **membranes**

IN Wolter, Herbert; Ballweg, Thomas; Storch, Werner

PA Fraunhofer-Gesellschaft Zur Forderung Der Angewandten Forschung E.V., Germany

SO Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

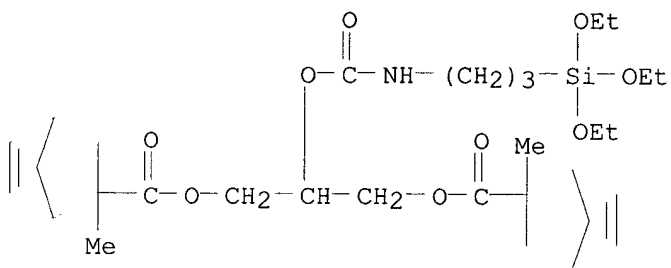
DT Patent

LA German

* applicants

IC ICM B01D071-70
ICS C08G077-00; C08L083-00; C08F230-08
CC 38-3 (Plastics Fabrication and Uses)
FAN.CNT 1

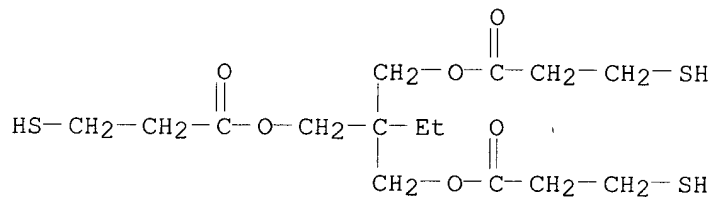
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 985443	A2	20000315	EP 1999-113690	19990715
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19846608	A1	20000323	DE 1998-19846608	19981009
PRAI	DE 1998-19841440		19980910		
	DE 1998-19846608		19981009		
AB	The title membranes , which can be supported or free-standing and are useful in sepn. and in gas exchange, are formed from liqs. prepd. by hydrolytic polycondensation of norbornyl group-contg. silanes and/or other silanes of specified structure. A polysiloxane prepd. by hydrolytic polymn. of a mixt. of glycerol 1,3-dimethacrylate 1, 3-(triethoxysilyl)propyl isocyanate 1, and 1,12-decanediol dimethacrylate 0.2 mol was spun to form <u>hollow fibers</u> and cured by UV. The cured hollow fibers had elastic modulus 2640 MPa, tensile strength 106 MPa, and O permeability 0.09 .times. 10-10 mL/cm-s-cm Hg.				
ST	polysiloxane membrane semipermeable; hollow fiber semipermeable polysiloxane ; methacrylate polysiloxane membrane semipermeable; isocyanate triethoxysilylpropyl copolymer membrane ; gas sepn membrane semipermeable				
IT	Polysiloxanes , uses RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polysiloxane semipermeable membranes)				
IT	Membranes , nonbiological (semipermeable; polysiloxane semipermeable membranes)				
IT	Gases (sepn.; polysiloxane semipermeable membranes for gas sepn.)				
IT	148568-79-0P	209127-62-8P	260560-62-1P	260560-63-2P	260979-43-9P,
	Glycerol 1,3-dimethacrylate-3-(triethoxysilyl)propyl isocyanate-1,12-dodecanediol dimethacrylate hydrolytic copolymer				
	260979-44-0P	260979-45-1P			
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polysiloxane semipermeable membranes)				
IT	260979-44-0P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polysiloxane semipermeable membranes)				
RN	260979-44-0	HCAPLUS			
CN	Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-methyl-, 2-[[[3-(triethoxysilyl)propyl]amino]carbonyl]oxy]-1,3-propanediyl ester, polymer with diethoxydimethylsilane and 2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]-1,3-propanediyl bis(3-mercaptopropanoate) (9CI) (CA INDEX NAME)				
CM	1				
CRN	187161-70-2				
CMF	C31 H49 N O9 Si				



CM 2

CRN 33007-83-9

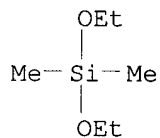
CMF C15 H26 O6 S3



CM 3

CRN 78-62-6

CMF C6 H16 O2 Si



L13 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:495321 HCAPLUS

DN 131:145263

TI Crosslinked sulfonated polymers and method for preparing same

IN Michot, Christophe; Armand, Michel

PA Hydro-Quebec, Can.

SO PCT Int. Appl., 43 pp.

CODEN: PIXXD2

DT Patent

LA French

IC ICM C08F008-44

ICS C08G081-00; C08G085-00; C08J005-22

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 24, 35, 67, 72

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI WO 9938897 A1 19990805 WO 1999-CA78 19990129
W: CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE

EP 973809 A1 20000126 EP 1999-902478 19990129
R: DE, FR, GB, IT

JP 2001522401 T2 20011113 JP 1999-538749 19990129
US 2002002240 A1 20020103 US 2001-906702 20010718

PRAI CA 1998-2228467 A 19980130
CA 1998-2236197 A 19980428
WO 1999-CA78 W 19990129
US 1999-390648 A1 19990907

AB The invention concerns crosslinked sulfonated polymers, optionally perfluorinated, having ionic charges on the sulfo groups and the method for prep. them. When they are molded in the form of **membranes**, said polymers are useful in fuel cells and electrochem. cells, in a chlorine-sodium electrolysis process, as separator in an electrochem. prep. of org. and inorg. compds., as separator between an aq. phase and an org. phase, or as catalyst for Diels-Alder addns., Friedel-Craft reactions, aldol condensations, cationic polymn., esterification, and acetal formation. Thus, fluorinating a Nafion 117 **membrane** in the Li salt form by Me2NSF2 in THF, reacting the resulting **membrane** having SO2F groups 3 h in diglyme under reflux with hexamethyldisilazane Li salt, rinsing with THF, aging the film 48 h in THF contg. Li trimethylsilanoate, rinsing the film with water and EtOH, and exchanging the metal ions for protons by several immersions in 2 M HNO3 gave a **membrane** with 32% of the sulfonyl groups in the form of sulfonimide and 78% in the form of sulfonate.

ST ion group contg crosslinked sulfonated polymer **membrane** manuf;
lithium methyldisilazane crosslinker sulfonated polymer **membrane**

IT Polymerization catalysts
(cationic; polymers having ionic charges on sulfo crosslinking groups for cationic polymn. catalysts)

IT Polysulfones, preparation
Polysulfones, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-, sulfonated; polymers having ionic charges on sulfo crosslinking groups)

IT Crosslinking
(polymers having ionic charges on sulfo crosslinking groups)

IT Diels-Alder reaction catalysts
(polymers having ionic charges on sulfo crosslinking groups Diels-Alder reaction catalysts)

IT Friedel-Crafts reaction catalysts
(polymers having ionic charges on sulfo crosslinking groups for Friedel-Crafts reaction catalysts)

IT Acetalization catalysts
(polymers having ionic charges on sulfo crosslinking groups for acetalization catalysts)

IT Aldol condensation catalysts
(polymers having ionic charges on sulfo crosslinking groups for aldol reaction catalysts)

IT Esterification catalysts
(polymers having ionic charges on sulfo crosslinking groups for esterification catalysts)

IT Fuel cells
(polymers having ionic charges on sulfo crosslinking groups for fuel cells)

IT **Membranes**, nonbiological

- (polymers having ionic charges on sulfo crosslinking groups for **membranes**)
- IT Polyethers, preparation
Polyethers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polysulfone-, sulfonated; polymers having ionic charges on sulfo crosslinking groups)
- IT Electrolytic cells
(sodium chloride-; polymers having ionic charges on sulfo crosslinking groups for electrolytic cells)
- IT 75-31-0, Isopropylamine, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crosslinker precursor; polymers having ionic charges on sulfo crosslinking groups)
- IT 82727-16-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinker precursor; polymers having ionic charges on sulfo crosslinking groups)
- IT 210542-03-3P
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinker; polymers having ionic charges on sulfo crosslinking groups)
- IT 75-24-1, Trimethylaluminum 280-57-9, DABCO 917-54-4, Methyllithium 1070-89-9, Hexamethyldisilazane sodium salt 1299-86-1, Aluminum carbide 4039-32-1, Hexamethyldisilazane lithium salt 7782-89-0, Lithium amide 7782-92-5, Sodium amide 7791-25-5, Sulfuryl chloride 7803-58-9, Sulfamide 17242-52-3, Potassium amide 26134-62-3, Lithium nitride 40949-94-8, Hexamethyldisilazane potassium salt 62619-91-4 84246-33-3 146829-75-6 146829-79-0 235440-76-3 235440-77-4 235440-78-5 235440-79-6 235440-80-9 235440-81-0 235764-57-5
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(crosslinker; polymers having ionic charges on sulfo crosslinking groups)
- IT 91742-20-ODP, reaction products with sulfo-crosslinked polymer 235440-59-2P 235440-60-5DP, hydrolyzed, lithium or sodium salts 235440-60-5DP, reaction products with N-**trimethylsilyltrifluoromethanesulfonamide** sodium salt 235440-63-8DP, reaction products with N-**trimethylsilyltrifluoromethanesulfonamide** sodium salt 235440-64-9P 235440-65-0DP, hydrolyzed, lithium salts 235440-67-2DP, hydrolyzed, lithium salts 235440-69-4DP, hydrolyzed, sodium salts 235440-71-8DP, hydrolyzed, lithium salts 235440-73-0DP, hydrolyzed
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymers having ionic charges on sulfo crosslinking groups)
- IT 121-44-8D, Triethylamine, reaction products with sulfo group-crosslinked polymers
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(polymers having ionic charges on sulfo crosslinking groups)
- IT 10028-15-6P, Ozone, preparation
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymers having ionic charges on sulfo crosslinking groups **membranes** for prodn. of ozone)
- IT 5063-03-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(product; polymers having ionic charges on sulfo crosslinking groups)

Diels-Alder reaction catalysts)
IT 78-94-4, Methyl vinyl ketone, reactions 542-92-7, Cyclopentadiene, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; polymers having ionic charges on sulfo crosslinking groups
Diels-Alder reaction catalysts)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Dainippon Ink And Chemicals Inc; EP 0275991 A 1988 HCAPLUS
(2) Deutsche Forschungsanstalt Fur Luft Und Raumfahrt; FR 2749311 A 1997 HCAPLUS
(3) Du Pont De Nemours And Company; EP 0064838 A 1982 HCAPLUS
(4) Exxon Research And Engineering Company; WO 9217423 A 1992 HCAPLUS
(5) North West Water Group Plc; WO 9515351 A 1995 HCAPLUS
(6) The Dow Chemical Company; WO 9638754 A 1996 HCAPLUS
(7) The Dow Chemical Company; WO 9709373 A 1997 HCAPLUS
IT 5063-03-6P
RL: IMF (Industrial manufacture); PREP (Preparation)
(product; polymers having ionic charges on sulfo crosslinking groups
Diels-Alder reaction catalysts)
RN 5063-03-6 HCAPLUS
CN Ethanone, 1-bicyclo[2.2.1]hept-5-en-2-yl- (9CI) (CA INDEX NAME)

Ac

L13 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1997:71755 HCAPLUS
DN 126:89914
TI Catalysts for polymerization of cycloolefins with acetylenes
IN Fuchigami, Takamasa; Yamamoto, Toshinori; Saito, Yasuko; Nagase, Yutaka
PA Sagami Chem Res, Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08G061-02
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38, 67
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08295725	A2	19961112	JP 1995-102869	19950427
AB	Cycloolefins are polyadd. with acetylenes using catalysts comprising hydrosilanes and A+[W2H(CO)10]- (A+ = alkali metal cations, ammonium cations, iminium cations, phosphonium cations). The polymers are useful for gas or liq. sepn. membranes , electroconductive materials, etc. Thus, polymn. of 47.0 mg norbornene with 51.3 mg phenylacetylene at 100.degree. for 20 h in PhMe in the presence of 159.7 .mu.L trimethylsilane and 7.8 mg Et4N[W2H(CO)10] gave a polymer with Mn 2.28 .times. 104.				
ST	cycloolefin acetylene polymn catalyst tungsten hydrosilane ; sepn membrane cycloolefin acetylene copolymer manuf; acenaphthylene octyne polymn catalyst; norbornene phenylacetylene polymn catalyst; dicyclopentadiene phenylpropyne polymn catalyst				

IT Permselective **membranes**
(acetylene-cycloolefin copolymers for gas or liq. sepn.
membranes)

IT Polymerization catalysts
(**hydrosilane** and tungsten compd. catalysts for polymn. of
cycloolefins and acetylenes)

IT Cycloalkene polymers
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(with acetylenes; **hydrosilane** and tungsten compd. catalysts
for polymn. of cycloolefins and acetylenes)

IT 617-86-7, **Triethylsilane** 12083-01-1
RL: CAT (Catalyst use); USES (Uses)
(**hydrosilane** and tungsten compd. catalysts for polymn. of
cycloolefins and acetylenes)

IT 52397-20-3P **134215-69-3P**, Norbornene-phenylacetylene copolymer
173394-19-9P 185548-18-9P 185548-19-0P
185548-20-3P 185548-21-4P **185548-22-5P** 185548-23-6P
185548-24-7P 185548-25-8P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(**hydrosilane** and tungsten compd. catalysts for polymn. of
cycloolefins and acetylenes)

IT **134215-69-3P**, Norbornene-phenylacetylene copolymer
173394-19-9P 185548-18-9P 185548-19-0P
185548-22-5P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(**hydrosilane** and tungsten compd. catalysts for polymn. of
cycloolefins and acetylenes)

RN 134215-69-3 HCAPLUS

CN Bicyclo[2.2.1]hept-2-ene, polymer with ethynylbenzene (9CI) (CA INDEX
NAME)

CM 1

CRN 536-74-3

CMF C8 H6

Ph-C≡CH

CM 2

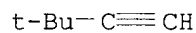
CRN 498-66-8

CMF C7 H10

RN 173394-19-9 HCAPLUS

CN Bicyclo[2.2.1]hept-2-ene, polymer with 3,3-dimethyl-1-butyne (9CI) (CA
INDEX NAME)

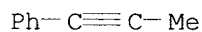
CM 1

CRN 917-92-0
CMF C6 H10

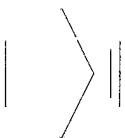
CM 2

CRN 498-66-8
CMF C7 H10RN 185548-18-9 HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, polymer with 1-propynylbenzene (9CI) (CA INDEX NAME)

CM 1

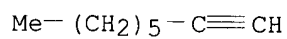
CRN 673-32-5
CMF C9 H8

CM 2

CRN 498-66-8
CMF C7 H10RN 185548-19-0 HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, polymer with 1-octyne (9CI) (CA INDEX NAME)

CM 1

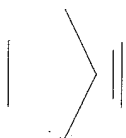
CRN 629-05-0
CMF C8 H14



CM 2

CRN 498-66-8

CMF C7 H10



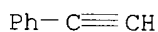
RN 185548-22-5 HCAPLUS

CN 4,7-Methano-1H-indene, 3a,4,7,7a-tetrahydro-, polymer with
bicyclo[2.2.1]hept-2-ene and ethynylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 536-74-3

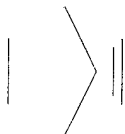
CMF C8 H6



CM 2

CRN 498-66-8

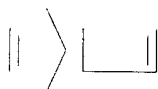
CMF C7 H10



CM 3

CRN 77-73-6

CMF C10 H12



AN 1996:70006 HCAPLUS
DN 124:119421
TI Morphology and permeability of polymer blends. I. Crosslinked
EPDM-silicone blends
AU Geerts, Y.; Gillard, S.; Geuskens, G.
CS Univ. Libre Bruxelles, Brussels, B-1050, Belg.
SO Eur. Polym. J. (1996), 32(2), 143-5
CODEN: EUPJAG; ISSN: 0014-3057
DT Journal
LA English
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 39
AB EPDM-silicone rubber blends prep'd. by melt mixing were compression molded
into sheets and crosslinked by gamma irradiation. The permeability of the
blends to methanol vapor has been measured at room temp. It changes
progressively with **membrane** comp'n. and no threshold can be
detected at phase inversion. The results are discussed in relationship
with the morphol. of the blends.
ST crosslinked silicone rubber blend EPDM **membrane**; morphol
permeability blend EPDM **membrane**
IT **Membranes**
Permeability and Permeation
Polymer morphology
(morphol. and permeability of crosslinked EPDM-silicone blend
membrane)
IT Rubber, synthetic
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(EPDM, morphol. and permeability of crosslinked EPDM-silicone blend
membrane)
IT Rubber, silicone, uses
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(di-Me, Me vinyl, morphol. and permeability of crosslinked
EPDM-silicone blend **membrane**)
IT 29499-83-0, Ethylene-norbornene-propylene copolymer 155665-02-4,
Dimethylsilanediol-methylvinylsilanediol copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(rubber; morphol. and permeability of crosslinked EPDM-silicone blend
membrane)
IT 29499-83-0, Ethylene-norbornene-propylene copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)
(rubber; morphol. and permeability of crosslinked EPDM-silicone blend
membrane)
RN 29499-83-0 HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, polymer with ethene and 1-propene (9CI) (CA
INDEX NAME)

CM 1

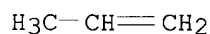
CRN 498-66-8
CMF C7 H10



CM 2

CRN 115-07-1

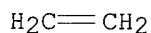
CMF C3 H6



CM 3

CRN 74-85-1

CMF C2 H4



L13 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:25566 HCAPLUS

DN 120:25566

TI Synthesis and structure-activity relationships of a series of insecticidal dioxatricyclo[7.2.1.0^{2,8}]dodec-10-ene acting as the noncompetitive antagonist of GABAA receptors

AU Ozoe, Yoshihisa; Takayama, Toyoji; Sawada, Yoshihiro; Mochida, Kazuo; Nakamura, Toshiie; Matsumura, Fumio

CS Fac. Agric., Shimane Univ., Matsue, 690, Japan

SO J. Agric. Food Chem. (1993), 41(11), 2135-41

CODEN: JAFCAU; ISSN: 0021-8561

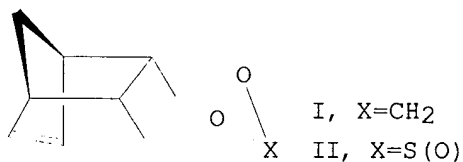
DT Journal

LA English

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 28

GI

AB Chlorinated analogs of 5-substituted 2,3:8,7-endo-4,6-dioxatricyclo[7.2.1.0^{2,8}]dodec-10-ene (DTD) (I) and 2,3:8,7-endo-4,6-dioxa-

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

- 5-thiatricyclo[7.1.1.02,8]dodec-10-ene 1-oxide (II) were prepd. With -CH₂-, -CH(Me)-, and -SO- at the 5 position, the presence of chlorine atoms in the norbornene moiety was important in exerting toxic effects to houseflies, while with -CH(Pr)- and -CH(PhCN-4)- the introduction of chlorine atoms resulted in a loss of toxic activity. The effect of the presence of chlorine atoms on the potency in inhibiting [35S]tert-butylbicyclophosphorothionate (TBPS) binding to rat brain **membranes** was correlated to their insecticidal activity. A good correlation was obtained between insecticidal activity and the potency in inhibiting [35S]TBPS binding for 29 compds., including known noncompetitive antagonists of GABAA receptor. The Scatchard anal. indicated that both types of analogs, 1,9,10,11,12,12-hexachloro-DTD and 5-(4-cyanophenyl)DTD, act competitively at the TBPS binding site in the GABA-gated chloride channel. These 2 types of analogs, however, appear to interact with slightly different subsites within the TBPS binding site.
- ST insecticide dioxatricyclododecene chloro prepn structure; GABA receptor antagonist dioxatricyclododecene prepn structure
- IT Insecticides
(dioxatricyclododecenes, as GABAergic antagonists, prepn. of, structure in relation to)
- IT Neurotransmitter antagonists
(GABAergic, dioxatricyclododecenes, as insecticides, prepn. of, structure in relation to)
- IT Molecular structure-biological activity relationship
(insecticidal, of dioxatricyclododecenes)
- IT Molecular structure-biological activity relationship
(neurotransmitter antagonist, of dioxatricyclododecenes)
- IT 108-31-6, Maleic anhydride, reactions
RL: RCT (Reactant)
(Diels-Alder reaction of, with cyclopentadienone di-Et acetal)
- IT 2931-32-0
RL: RCT (Reactant)
(Diels-Alder reaction of, with maleic anhydride)
- IT 23786-93-8, Cyclopentanone diethyl acetal
RL: RCT (Reactant)
(bromination of, followed by dehydrobromination)
- IT 695-77-2, 1,2,3,4-Tetrachlorocyclopentadiene
RL: RCT (Reactant)
(cyclization of, with butenediol)
- IT 61474-44-0 99664-06-9 115459-37-5 126753-84-2 126872-27-3
126872-28-4
RL: BIOL (Biological study)
(insecticidal and GABAergic antagonist activities of, structure in relation to)
- IT 38680-03-4
RL: RCT (Reactant)
(lithium aluminum hydride redn. of)
- IT **151561-10-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetylation of)
- IT **142743-04-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and chlorine substitution reaction of)
- IT **151561-14-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization with diethoxyalkanes)
- IT **151561-11-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deethylation of, ketone deriv. formation after)
- IT **151561-12-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of)

IT 58166-88-4P 151560-89-3P 151560-90-6P 151560-91-7P 151560-92-8P
151560-93-9P 151560-94-0P 151560-95-1P 151560-96-2P 151560-97-3P
151560-98-4P 151560-99-5P 151561-00-1P 151561-01-2P 151561-02-3P
151561-03-4P 151561-04-5P 151561-05-6P 151561-06-7P 151561-07-8P
151561-08-9P 151561-09-0P 151636-02-1P 151636-03-2P 151636-04-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and insecticidal and GABAergic antagonist activities of,
structure in relation to)

IT 151561-13-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and protection with cyanobenzaldehyde or reductive
dechlorination of)

IT 52771-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with diethoxymethane)

IT 1066-54-2

RL: RCT (Reactant)
(reaction of, with (bromophenyl) DTD)

IT 126753-85-3

RL: RCT (Reactant)
(reaction of, with (trimethylsilyl)acetylene)

IT 105-07-7, p-Cyanobenzaldehyde

RL: RCT (Reactant)
(reaction of, with bicyclodiol deriv.)

IT 105-57-7, 1,1-Diethoxyethane 123-38-6, Propionaldehyde, reactions
123-72-8, Butyraldehyde 462-95-3, Diethoxymethane

RL: RCT (Reactant)
(reaction of, with bis(hydroxymethyl)bicycloheptene)

IT 17378-23-3

RL: RCT (Reactant)
(reaction of, with diethoxyalkanes or aldehydes)

IT 6117-80-2, cis-2-Butene-1,4-diol

RL: BIOL (Biological study)
(tetrachlorocyclopentadiene cyclization with)

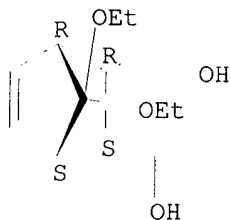
IT 151561-10-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetylation of)

RN 151561-10-3 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 7,7-diethoxy-, (endo,endo)- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



IT 142743-04-2P

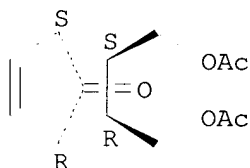
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and chlorine substitution reaction of)

RN 142743-04-2 HCAPLUS

CN Bicyclo[2.2.1]hept-2-en-7-one, 5,6-bis[(acetyloxy)methyl]-, (endo,endo)-

(9CI) (CA INDEX NAME)

Relative stereochemistry.



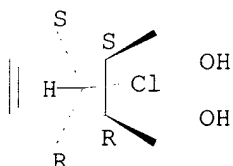
IT 151561-14-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cyclization with diethoxyalkanes)

RN 151561-14-7 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 7-chloro-, (2-endo,3-endo,7-syn)-
(9CI) (CA INDEX NAME)

Relative stereochemistry.



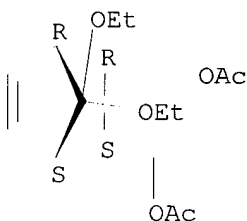
IT 151561-11-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and deethylation of, ketone deriv. formation after)

RN 151561-11-4 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 7,7-diethoxy-, diacetate,
(endo,endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



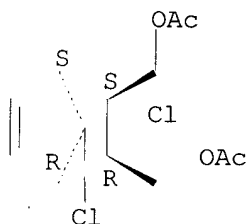
IT 151561-12-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydrolysis of)

RN 151561-12-5 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 7,7-dichloro-, diacetate,
(endo,endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



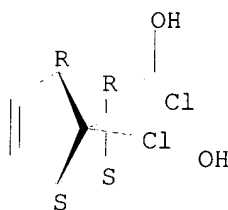
IT 151561-13-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and protection with cyanobenzaldehyde or reductive
dechlorination of)

RN 151561-13-6 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 7,7-dichloro-, (endo,endo)- (9CI)
(CA INDEX NAME)

Relative stereochemistry.



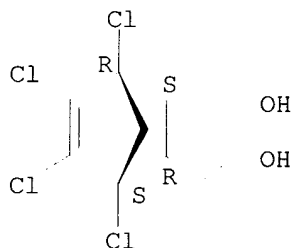
IT 52771-06-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with diethoxymethane)

RN 52771-06-9 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 1,4,5,6-tetrachloro-,
(endo,endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



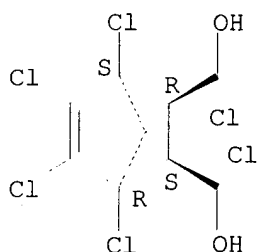
IT 17378-23-3

RL: RCT (Reactant)
(reaction of, with diethoxyalkanes or aldehydes)

RN 17378-23-3 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro-,
(endo,endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



- L13 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2002 ACS
 AN 1993:450789 HCAPLUS
 DN 119:50789
 TI Transport mechanism through zeolite-filled gas separation
membranes
 AU Duval, J. M.; Folkers, B.; Mulder, M. H. V.; Smolders, C. A.;
 Desgrandchamps, G.
 CS Dep. Chem. Technol., Univ. Twente, Enschede, 7500, Neth.
 SO Recents Prog. Genie Procesdes (1992), 6(21, Membr. Processes: Water
 Treat.-Pervaporation), 337-42
 CODEN: RPGPEX; ISSN: 1166-7478
 DT Journal
 LA English
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39
 AB The influence of specific adsorbents on the gas sepn. properties of
 polymeric **membranes** has been studied. The polymers used were
 di-Me **siloxane** RTV615A and ethylene-propylene rubber Keltan 578,
 zeolite ued were silicaate-1,13X, KY, 5A. Incorporation of zeolites like
 silicaate-1,13X and KY improves gas sepn. properties of **membranes**
 . Mol. sieve carbons can only lead to limited improvements of the
 selectivity and the permeability for the sepn. of CO₂/CH₄. On the other
 hand, some zeolites result in a large enhancement of the **membrane**
 performance. The exptl. methods include gas permeation and sorption of
 both pure gases and mixts. Permeability models developed for
 heterogeneous systems are applied to the permeation results and show that
 the "zeolite permeabilities" detd. in this way are not equal to the
 intrinsic properties.
 ST zeolite filled gas sepn **membrane**; silicone rubber zeolite filled
 permeation; EPDM rubber zeolite filled permeation; synthetic rubber
 zeolite filled permeation
 IT Carbon black, uses
 RL: USES (Uses)
 (activated, gas sepn. **membranes** filled with, transport
 mechanism through)
 IT Sorption
 (of carbon dioxide, by zeolite-filled silicone or synthetic rubber
membranes, gas sepn. in relation to)
 IT Permeability and Permeation
 (of zeolite-filled silicone or synthetic rubber)
 IT Pore
 (size of, of zeolites, transport mechanism through zeolite-filled gas
 sepn. **membranes**)
 IT **Membranes**
 (zeolite-filled silicone or synthetic rubber, for gas sepn.)
 IT Zeolites, miscellaneous
 RL: MSC (Miscellaneous)
 (13X, gas sepn. **membranes** filled with, transport mechanism

through)
IT Zeolites, miscellaneous
RL: MSC (Miscellaneous)
(5A, gas sepn. **membranes** filled with, transport mechanism through)
IT Zeolites, miscellaneous
RL: MSC (Miscellaneous)
(KY, gas sepn. **membranes** filled with, transport mechanism through)
IT Rubber, silicone, properties
RL: PRP (Properties)
(di-Me, zeolite-filled, gas sepn. **membranes**, transport mechanism through)
IT Rubber, synthetic
RL: PRP (Properties)
(ethylene-ethylidenenorbornene-propene, zeolite-filled, gas sepn. **membranes**, transport mechanism through)
IT Zeolites, miscellaneous
RL: MSC (Miscellaneous)
(silicalite 1, gas sepn. **membranes** filled with, transport mechanism through)
IT 7631-86-9, Silica, uses
RL: USES (Uses)
(gas sepn. **membranes** filled with, transport mechanism through)
IT **25038-36-2**, Ethylene-ethylidenenorbornene-propene copolymer
RL: USES (Uses)
(rubber, zeolite-filled, gas sepn. **membranes**, transport mechanism through)
IT 74-82-8, Methane, miscellaneous
RL: MSC (Miscellaneous)
(sepn. of mixt. of carbon dioxide and, by zeolite-filled gas sepn. **membranes**, transport mechanism in relation to)
IT 124-38-9, Carbon dioxide, miscellaneous
RL: MSC (Miscellaneous)
(sepn. of mixt. of methane and, by zeolite-filled gas sepn. **membranes**, transport mechanism in relation to)
IT **25038-36-2**, Ethylene-ethylidenenorbornene-propene copolymer
RL: USES (Uses)
(rubber, zeolite-filled, gas sepn. **membranes**, transport mechanism through)
RN 25038-36-2 HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, 5-ethylidene-, polymer with ethene and 1-propene
(9CI) (CA INDEX NAME)

CM 1

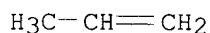
CRN 16219-75-3
CMF C9 H12

CH-Me



CM 2

CRN 115-07-1
CMF C3 H6

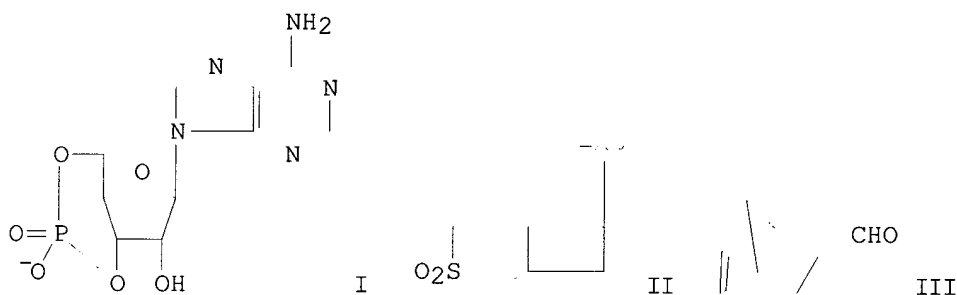


CM 3

CRN 74-85-1
CMF C2 H4



L13 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1993:449816 HCAPLUS
DN 119:49816
TI Carbocyclic analogs of nucleosides. Part 3. Synthesis of a new sulfone analog of cyclic adenosine 3',5'-monophosphate
AU Jenny, Thomas F.
CS Lab. Org. Chem., ETH Zent., Zurich, CH-8092, Switz.
SO Helv. Chim. Acta (1993), 76(1), 248-58
CODEN: HCACAV; ISSN: 0018-019X
DT Journal
LA English
CC 33-9 (Carbohydrates)
OS CASREACT 119:49816
GI

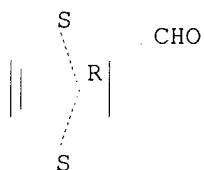


AB The novel uncharged analog I of adenosine 3',5'-monophosphate (II) was prep'd. in its racemic form. To increase **membrane** permeability, the phosphate diester monoanion group of II was replaced by a dimethylene sulfone unit (= methanosulfonylmethano group), and the 2'-OH group was removed. To decrease lability against acid-catalyzed depurination, the ring O-atom was replaced by a CH₂ group. All three modifications were also expected to increase the stability of analog I towards enzymic degrdn. The carbocyclic skeleton of I was constructed from norbornenecarboxaldehyde III, and the adenine precursor 6-chloropurine was introduced in the carbocyclic unit via an S_N2 reaction based on Mitsunobu

- chem.
- ST nucleoside carbocyclic analog; adenosine cyclic monophosphate sulfone analog
- IT Nucleosides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of carbocyclic analogs of)
- IT 65-85-0, Benzoic acid, reactions
RL: RCT (Reactant)
(Mitsunobu reaction of triphenylphosphine, DEAD and, with hydroxy(**silyloxymethyl**)cyclopentaneacetate)
- IT 507-09-5, Thioacetic acid, reactions
RL: RCT (Reactant)
(Mitsunobu reaction of triphenylphosphine, DEAD, and with carbocyclic adenosine deriv.)
- IT 87-42-3, 6-Chloropurine
RL: RCT (Reactant)
(Mitsunobu reaction of triphenylphosphine, DEAD, and, with hydroxy(**silyloxymethyl**)cyclopentaneacetate)
- IT 100-51-6, Benzenemethanol, reactions
RL: RCT (Reactant)
(cyclization by DBU and, of carbocyclic adenosine thioacetate deriv.)
- IT **19926-88-6P**, exo-5-Norbornene-2-carboxaldehyde
RL: PREP (Preparation)
(isolation of, from endo/exo mixt., and redn. by sodium borohydride)
- IT 148437-46-1P 148437-47-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and Baeyer-Villiger oxidn. of)
- IT 148553-44-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and Mitsunobu reaction with thioacetic acid in presence of triphenylphosphine and DEAD)
- IT 148553-40-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and Mitsunobu-type reaction of)
- IT **13360-81-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetylation of)
- IT 148553-41-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and amination of)
- IT 148437-48-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and base-catalyzed lactone ring cleavage of)
- IT 148553-42-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and benzylation of)
- IT 148437-52-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and debenzoylation of)
- IT 148553-45-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **desilylation** by tetrabutylammonium fluoride)
- IT **42836-43-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydroboration of)
- IT 148553-46-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and mesylation of)
- IT 148437-50-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

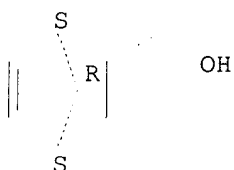
- (prepn. and methanolysis of)
- IT 148437-51-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. by Oxone)
- IT 148437-44-9P 148437-45-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. by pyridinium chlorochromate)
- IT 138903-83-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reaction with chloropurine in presence of
triphenylphosphine and DEAD)
- IT 148553-43-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and redn. by lithium triethylborohydride)
- IT 148471-31-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and reductive cyclization by with phenylmethanethiol in
presence of DBU)
- IT 128453-40-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **silylation** of)
- IT **19926-90-0P** 148437-49-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
- IT 60-92-4P, Adenosine cyclic 3',5'-monophosphate
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of sulfone analog of)
- IT 148437-43-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, and its use in metabolic processes)
- IT **19926-88-6P**, exo-5-Norbornene-2-carboxaldehyde
RL: PREP (Preparation)
(isolation of, from endo/exo mixt., and redn. by sodium borohydride)
- RN 19926-88-6 HCAPLUS
- CN Bicyclo[2.2.1]hept-5-ene-2-carboxaldehyde, (1R,2S,4R)-rel- (9CI) (CA
INDEX NAME)

Relative stereochemistry.



- IT **13360-81-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and acetylation of)
- RN 13360-81-1 HCAPLUS
- CN Bicyclo[2.2.1]hept-5-ene-2-methanol, (1R,2S,4R)-rel- (9CI) (CA INDEX
NAME)

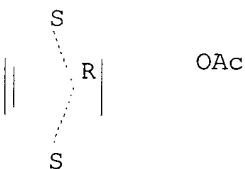
Relative stereochemistry.

IT **42836-43-1P**RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and hydroboration of)

RN 42836-43-1 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-methanol, acetate, (1R,2S,4R)-rel- (9CI) (CA
INDEX NAME)

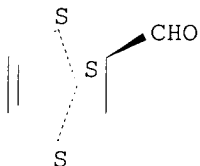
Relative stereochemistry.

IT **19926-90-0P**RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 19926-90-0 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxaldehyde, (1R,2R,4R)-rel- (9CI) (CA
INDEX NAME)

Relative stereochemistry.



L13 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2002 ACS

AN 1991:165009 HCAPLUS

DN 114:165009

TI Ring-opening metathesis polymerization of norbornenes with organosilicon
substituents. Gas permeability of polymers obtainedAU Finkel'shtein, E. Sh.; Makovetskii, K. L.; Yampol'skii, Yu. P.;
Ostrovskaya, I. Ya.; Portnykh, E. B.; Kalyuzhnyi, N. E.; Pritula, N. A.;
Gol'berg, A. I.; Yatsenko, M. S.; Plate, N. A.

CS Inst. Petrochem. Synth., Moscow, 117912, USSR

SO Makromol. Chem. (1991), 192(1), 1-9

CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English

CC 35-7 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

AB Polymers of norbornenes with SiMe3 and SiMe2CH2SiMe3 groups were

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synthesized, and mass transfer properties of the polymers were studied. Ring-opening polymns. of these monomers were realized in the presence of homogeneous WCl₆-based and heterogeneous Re₂O₇-based metathesis catalysts. Introduction of Si-contg. groups in the polynorbornene main chain resulted in a drastic increase of the permeability and diffusion coeffs. for different biat. and multiat. gases. Comparison of polymers having SiMe₃ and SiMe₂CH₂SiMe₃ substituents showed lower permeability and diffusion coeffs. in the latter case. The combination of transport properties (Pi values) and sepn. factors $a_{ij} = P_i/P_j$ of the 2 new Si-contg. polynorbornenes permitted their consideration as representatives of the most permeable and sufficiently permselective group of polymers. Transport properties of the polymers studied were analyzed on the basis of the free-vol. approach.

- ST **polysilylnorbornene** permeability selectivity gas;
silylnorbornene polymn metathesis ring opening
- IT Diffusion
(of gases in poly(**silylnorbornenes**), **silyl** group effect on)
- IT Permeability and Permeation
(of poly(**silylnorbornenes**) in regard to gases, **silyl** group effect on)
- IT Polymerization
(metathetic, ring-opening, of **silylnorbornenes**)
- IT Polymerization catalysts
(metathetic, ring-opening, tungsten- and rhenium-based, for **silylnorbornenes**)
- IT **Membranes**
(permselective, poly(**silylnorbornenes**), prepn. and properties of)
- IT 78-00-2, Tetraethylplumbane 1461-25-2, Tetrabutylstannane
RL: USES (Uses)
(catalysts contg. rhenium oxide and, for ring-opening metathetic polymn. of **silylnorbornenes**)
- IT 536-74-3, Phenylacetylene 595-90-4, Tetraphenylstannane 1113-12-8
1627-98-1 1779-25-5, Diisobutylaluminum chloride
RL: USES (Uses)
(catalysts contg. tungsten chloride and, for metathetic ring-opening polymn. of **silylnorbornenes**)
- IT 13283-01-7, Tungsten hexachloride
RL: CAT (Catalyst use); USES (Uses)
(catalysts contg., for metathetic ring-opening polymn. of **silylnorbornenes**)
- IT 1314-68-7, Rhenium heptoxide
RL: CAT (Catalyst use); USES (Uses)
(catalysts contg., for ring-opening metathetic polymn. of **silylnorbornenes**)
- IT 754-05-2, **Vinyltrimethylsilane**
RL: RCT (Reactant)
(cycloaddn. reaction of, with cyclopentadiene)
- IT 542-92-7, Cyclopentadiene, reactions
RL: RCT (Reactant)
(cycloaddn. reaction of, with **vinylsilanes**)
- ✓ IT **25038-76-0, Polynorbornene**
RL: USES (Uses)
(**membranes**, for gases, permeability and selectivity of, **silylation** effect on)
- IT 74-82-8, Methane, properties 74-84-0, Ethane, properties 124-38-9,
Carbon dioxide, properties 1333-74-0, Hydrogen, properties 7727-37-9,
Nitrogen, properties 7782-44-7, Oxygen, properties
RL: PRP (Properties)

(permeability coeffs. of poly(**silylnorbornenes**) for)

IT 133213-89-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and cycloaddn. reaction of, with cyclopentadiene)

IT 131853-82-2P 132955-53-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and gas permselectivity properties of)

IT 133213-90-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and methylation of)

IT 17985-13-6P 132955-52-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and polymn. of)

IT 75-94-5, **Vinyltrichlorosilane**
RL: RCT (Reactant)
(reaction of, with **chloromethyltrimethylsilane**)

IT 2344-80-1, **Chloromethyltrimethylsilane**
RL: RCT (Reactant)
(reaction of, with **vinyltrichlorosilane**)

IT 25038-76-0, Polynorbornene
RL: USES (Uses)
(**membranes**, for gases, permeability and selectivity of,
silylation effect on)

RN 25038-76-0 HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 498-66-8
CMF C7 H10

IT 131853-82-2P 132955-53-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and gas permselectivity properties of)

RN 131853-82-2 HCAPLUS
CN Silane, bicyclo[2.2.1]hept-5-en-2-yltrimethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 17985-13-6
CMF C10 H18 Si

SiMe₃

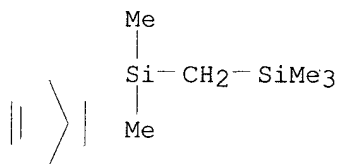
RN 132955-53-4 HCAPLUS
CN Silane, [(bicyclo[2.2.1]hept-5-en-2-yltrimethylsilyl)methyl]trimethyl-,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 132955-52-3

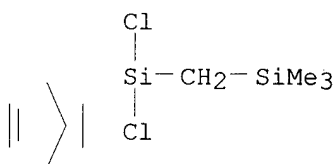
CMF C13 H26 Si2



IT 133213-90-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and methylation of)

RN 133213-90-8 HCAPLUS

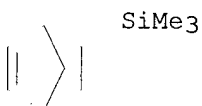
CN Silane, [(bicyclo[2.2.1]hept-5-en-2-yl)dichlorosilyl)methyl]trimethyl-
(9CI) (CA INDEX NAME)

IT 17985-13-6P 132955-52-3P

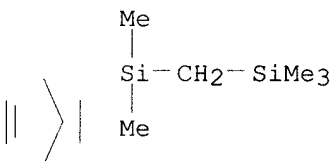
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and polymn. of)

RN 17985-13-6 HCAPLUS

CN Silane, bicyclo[2.2.1]hept-5-en-2-yltrimethyl- (9CI) (CA INDEX NAME)

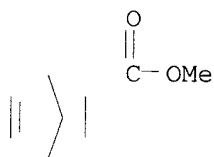


RN 132955-52-3 HCAPLUS

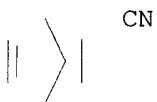
CN Silane, [(bicyclo[2.2.1]hept-5-en-2-yl)dimethylsilyl)methyl]trimethyl-
(9CI) (CA INDEX NAME)

AN 1988:423445 HCAPLUS
DN 109:23445
TI X Polynorbornenes with **oligodimethylsiloxanyl** substituents for selectively oxygen permeable **membrane** material
AU Kawakami, Yuhuke; Toda, Hiroshi; Higashino, Michiko; Yamashita, Yuya --
CS Fac. Eng., Nagoya Univ., Nagoya, 464, Japan
SO Polym. J. (Tokyo) (1988), 20(4), 285-92
CODEN: POLJB8; ISSN: 0032-3896
DT Journal
LA English
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38
AB 2-**Oligodimethylsiloxanyl**-substituted 5-norbornene-2-carbonitriles and carboxylates were synthesized from 5-norbornene-2-carbonitrile and Me 5-norbornene-2-carboxylate by metalation at the 2-position followed by reaction with monochloro-functionalized **oligodimethylsiloxane**. Polymers were obtained by the ring-opening polymn. of the monomers by a metathesis catalyst. Permeation of O through the polymer films was highly selective over N. The diffusion coeff. played the principal role in the permeation.
ST **oligodimethylsiloxanyl** polynorbornene **membrane**; oxygen permeation polynorbornene **membrane**
IT Glass temperature and transition
(of **oligodimethylsiloxanyl**-substituted norbornene polymer **membranes**)
IT Permeability and Permeation
(of oxygen, through **oligodimethylsiloxanyl**-substituted norbornene polymer **membranes**)
IT Diffusion
(of oxygen, through **oligodimethylsiloxanyl**-substituted norbornene polymer **membranes**, permeability in relation to)
IT **Membranes**
(**oligodimethylsiloxanyl**-substituted norbornene polymers, prepn. and oxygen permeability of)
IT 27176-60-9P 30811-49-5P 115013-02-0P
115013-03-1P 115013-04-2P 115013-05-3P
115013-06-4P 115013-07-5P 115013-08-6P
115013-10-0P 115013-12-2P 115013-14-4P
115039-95-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**membranes**, prepn. and oxygen permeability of)
IT 7782-44-7, Oxygen, properties
X RL: PRP (Properties)
(permeation of, through **oligodimethylsiloxanyl**-substituted norbornene polymer **membranes**)
IT 72674-40-9P, 2-Ethyl-5-norbornene-2-carbonitrile
72674-41-0P, 2-Butyl-5-norbornene-2-carbonitrile
91245-75-9P, 2-Propyl-5-norbornene-2-carbonitrile
104724-80-3P, 2-**Trimethylsilyl**-5-norbornene-2-carbonitrile 104724-81-4P, 2-**Pentamethyldisiloxanyl**-5-norbornene-2-carbonitrile 104724-82-5P 104724-84-7P
, 2-**Trimethylsilylmethyl**-5-norbornene-2-carbonitrile
104724-85-8P, 2-**Pentamethylsiloxanylmethyl**-5-norbornene-2-carbonitrile 115013-09-7P, 2-Pentamethyldisilanyl-5-norbornene-2-carbonitrile 115013-11-1P,
Methyl 2-**trimethylsilyl**-5-norbornene-2-carboxylate
115013-13-3P, Methyl 2-**pentamethyldisiloxanyl**-5-norbornene-2-carboxylate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and polymn. of)

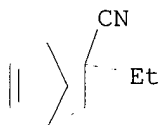
IT 74-96-4 75-77-4, **Trimethylsilyl** chloride, reactions
109-69-3, Butyl chloride 540-54-5, Propyl chloride 1560-28-7,
Pentamethylchlorodisilane 2344-80-1,
Trimethylsilylmethyl chloride 2943-62-6,
Pentamethylchlorodisiloxane 17201-83-1,
Pentamethyldisiloxanylmethyl chloride 18297-87-5, Heptamethyl-1-
chlorotrisiloxane
RL: RCT (Reactant)
(reaction of, with norbornene derivs.)
IT 27176-60-9P 30811-49-5P 115013-02-0P
115013-03-1P 115013-04-2P 115013-05-3P
115013-06-4P 115013-07-5P 115013-08-6P
115013-10-0P 115013-12-2P 115013-14-4P
115039-95-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(**membranes**, prepn. and oxygen permeability of)
RN 27176-60-9 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, methyl ester, homopolymer
(9CI) (CA INDEX NAME)
CM 1
CRN 6203-08-3
CMF C9 H12 O2



RN 30811-49-5 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, homopolymer (9CI) (CA INDEX
NAME)
CM 1
CRN 95-11-4
CMF C8 H9 N



RN 115013-02-0 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-ethyl-, homopolymer (9CI) (CA
INDEX NAME)
CM 1
CRN 72674-40-9
CMF C10 H13 N

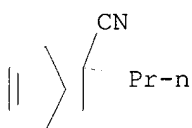


RN 115013-03-1 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-propyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 91245-75-9

CMF C11 H15 N

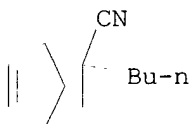


RN 115013-04-2 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-butyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 72674-41-0

CMF C12 H17 N

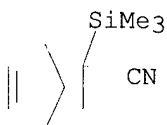


RN 115013-05-3 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(trimethylsilyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 104724-80-3

CMF C11 H17 N Si



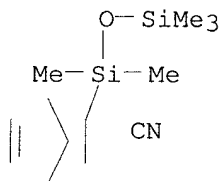
RN 115013-06-4 HCAPLUS
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(pentamethyldisiloxanyl)-,

homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 104724-81-4

CMF C13 H23 N O Si2



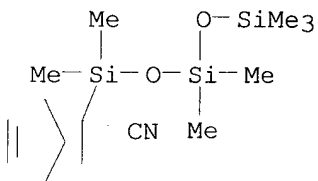
RN 115013-07-5 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(heptamethyltrisiloxanyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 104724-82-5

CMF C15 H29 N O2 Si3



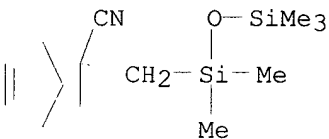
RN 115013-08-6 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-[(pentamethyldisiloxanyl)methyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 104724-85-8

CMF C14 H25 N O Si2



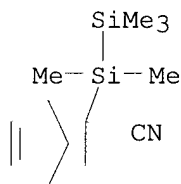
RN 115013-10-0 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(pentamethyldisilanyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115013-09-7

CMF C13 H23 N Si2



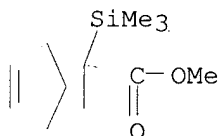
RN 115013-12-2 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trimethylsilyl)-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115013-11-1

CMF C12 H20 O2 Si



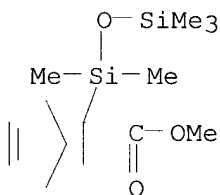
RN 115013-14-4 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(pentamethyldisiloxanyl)-, methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115013-13-3

CMF C14 H26 O3 Si2



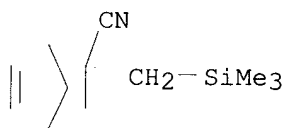
RN 115039-95-7 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-[(trimethylsilyl)methyl]-, homopolymer (9CI) (CA INDEX NAME)

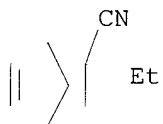
CM 1

CRN 104724-84-7

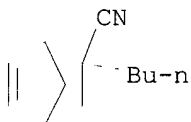
CMF C12 H19 N Si



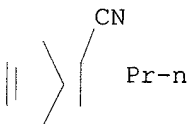
IT 72674-40-9P, 2-Ethyl-5-norbornene-2-carbonitrile
 72674-41-0P, 2-Butyl-5-norbornene-2-carbonitrile
 91245-75-9P, 2-Propyl-5-norbornene-2-carbonitrile
 104724-80-3P, 2-Trimethylsilyl-5-norbornene-2-carbonitrile
 104724-81-4P, 2-Pentamethyldisiloxanyl-5-norbornene-2-carbonitrile
 104724-82-5P 104724-84-7P, 2-Trimethylsilylmethyl-5-norbornene-2-carbonitrile
 104724-85-8P, 2-Pentamethylsiloxanylmethyl-5-norbornene-2-carbonitrile
 115013-09-7P, 2-Pentamethyldisilanyl-5-norbornene-2-carbonitrile
 115013-11-1P, Methyl 2-trimethylsilyl-5-norbornene-2-carboxylate
 115013-13-3P, Methyl 2-pentamethyldisiloxanyl-5-norbornene-2-carboxylate
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. and polymn. of)
 RN 72674-40-9 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-ethyl- (9CI) (CA INDEX NAME)



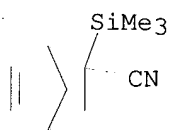
RN 72674-41-0 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-butyl- (9CI) (CA INDEX NAME)



RN 91245-75-9 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-propyl- (9CI) (CA INDEX NAME)

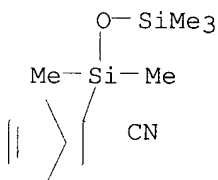


RN 104724-80-3 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(trimethylsilyl)- (9CI) (CA INDEX NAME)



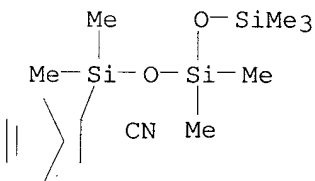
RN 104724-81-4 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(pentamethyldisiloxanyl)- (9CI)
(CA INDEX NAME)



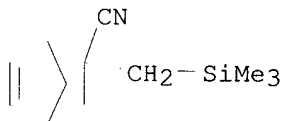
RN 104724-82-5 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(heptamethyltrisiloxanyl)-
(9CI) (CA INDEX NAME)



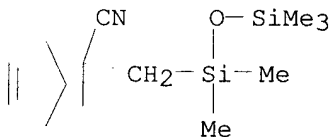
RN 104724-84-7 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-[(trimethylsilyl)methyl]- (9CI)
(CA INDEX NAME)

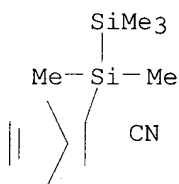


RN 104724-85-8 HCAPLUS

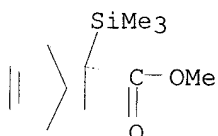
CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-[(pentamethyldisiloxanyl)methyl]- (9CI)
(CA INDEX NAME)



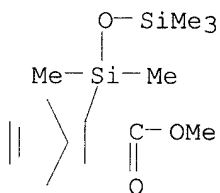
RN 115013-09-7 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carbonitrile, 2-(pentamethyldisilanyl)- (9CI)
 (CA INDEX NAME)



RN 115013-11-1 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(trimethylsilyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 115013-13-3 HCAPLUS
 CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-(pentamethyldisiloxanyl)-, methyl ester (9CI) (CA INDEX NAME)



* L13 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2002 ACS
 AN 1988:205967 HCAPLUS
 DN 108:205967
 TI Roofing **membranes** containing **silane**-modified polyolefins
 IN Topcik, Barry
 PA Union Carbide Corp., USA
 SO U.S., 5 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08L051-06
 ICS C08L023-16
 NCL 524504000
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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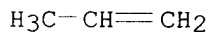
PI US 4722961 A 19880202 US 1986-874389 19860616
AB A hydrolyzable **silane**-modified ethene polymer (d. .ltoreq.0.92),
an ethene-propene-diene terpolymer rubber, carbon black or another
reinforcing filler, and a paraffin, naphthenic, and/or polybutene oil are
used in the prepn. of a roofing **membrane** which does not deform
during handling and is curable without heating. A mixt. of
ethene-propene-ethylidenenorbornene copolymer 33.3, tris(2-ethylhexyloxy)
vinylsilane-modified polyethylene (**silane** content 1-4%)
66.7, carbon black 100, paraffin oil 50, and 12.5:100 dibutyltin
dilaurate-polyethylene mixt. 2.7 parts was used to prep. a
membrane which, after curing in water, had 300% modulus 1100 psi,
tensile strength 1210 psi, elongation 505%, and shore A hardness 83. ---
ST **silane** polyethylene **membrane** roofing; propene polymer
membrane roofing; ethene polymer **membrane** roofing; EPDM
rubber **membrane** roofing; ethylidenenorbornene copolymer
membrane roofing; crosslinking **silane membrane**
roofing
IT Roofing
(**membranes**, **silane**-modified polyolefin-EPDM rubber
mixts. for)
IT Crosslinking
(of **silane**-modified polyolefin-EPDM rubber mixt., for roofing
membrane)
IT Rubber, synthetic
RL: USES (Uses)
(ethylene-ethylidenenorbornene-propene, **silane**-modified
polyolefin contg., for roofing **membrane**)
IT 109669-01-4 114502-79-3
RL: USES (Uses)
(roofing **membranes** contg. EPDM rubber and, curable)
IT 9002-88-4D, reaction products with **trialkoxylvinylsilanes**
RL: USES (Uses)
(roofing **membranes** contg., curable)
IT **25038-36-2**
RL: USES (Uses)
(rubber, **silane**-modified polyolefin contg., for roofing
membrane)
IT **25038-36-2**
RL: USES (Uses)
(rubber, **silane**-modified polyolefin contg., for roofing
membrane)
RN **25038-36-2** HCAPLUS
CN Bicyclo[2.2.1]hept-2-ene, 5-ethylidene-, polymer with ethene and 1-propene
(9CI) (CA INDEX NAME)
CM 1
CRN 16219-75-3
CMF C9 H12

CH-Me



CM 2

CRN 115-07-1
CMF C3 H6



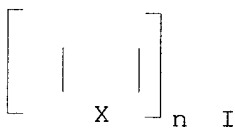
CM 3

CRN 74-85-1
CMF C2 H4



L13 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2002 ACS
AN 1986:425400 HCAPLUS
DN 105:25400
TI Selective permeation **membranes**
IN Sasaki, Tatsuro; Nogi, Tatsuo; Hirose, Shoichi
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM B01D013-00
ICA B01D013-04
CC 38-3 (Plastics Fabrication and Uses)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60241903	A2	19851130	JP 1984-97367	19840515
GI					



AB **Membranes** are prepd. from polymers contg. carbon linkages in the main chain and I units, where X = CR₁R₂, SiR₁R₂, and R₁, R₂ = H, alkyl, or Ph. Thus, a poly(**diallyldimethylsilane**) **membrane** had gas permeation coeff. 4.4 .times. 10⁻¹⁰ and 1.9 .times. 10⁻⁹ cm³ (STP).sm/cm².s.cm Hg, for N and O, resp.

ST oxygen nitrogen sepn **membrane**; polydiallyldimethylsilane permselective **membrane**

IT **Membranes**
(permselective, **diallyldimethylsilane** and heptadiene and norbornene polymers, for oxygen and nitrogen)

IT 7782-44-7P, preparation
RL: PREP (Preparation)

(permselective **membranes** for sepn. of nitrogen and,
diallyldimethylsilane and heptadiene and norbornene polymers
as)

IT 7727-37-9P, preparation

RL: PREP (Preparation)

(permselective **membranes** for sepn. of oxygen and,
diallyldimethylsilane and heptadiene and norbornene polymers
as)

IT 6576-79-0D, derivs., polymers **25038-76-0** 25067-97-4

42813-64-9 88004-42-6 102499-93-4

RL: USES (Uses)

(permselective **membranes**, for oxygen and nitrogen)

IT **25038-76-0**

RL: USES (Uses)

(permselective **membranes**, for oxygen and nitrogen)

RN 25038-76-0 HCAPLUS

CN Bicyclo[2.2.1]hept-2-ene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 498-66-8

CMF C7 H10

=> D QUE

L4 26517 SEA FILE=REGISTRY ABB=ON 103.10.3/RID
L5 1307 SEA FILE=REGISTRY ABB=ON L4 AND 1-20/SI
L6 669 SEA FILE=HCAPLUS ABB=ON L5
L7 3 SEA FILE=HCAPLUS ABB=ON L6 AND ?MEMBRANE?
L8 21688 SEA FILE=HCAPLUS ABB=ON L4
L9 486 SEA FILE=HCAPLUS ABB=ON L8 AND ?SILOXAN?
L10 4 SEA FILE=HCAPLUS ABB=ON L9 AND ?MEMBRANE?
L11 1626 SEA FILE=HCAPLUS ABB=ON L8 AND (?SILYL? OR ?SILANE?)
L12 11 SEA FILE=HCAPLUS ABB=ON L11 AND ?MEMBRANE?
L13 13 SEA FILE=HCAPLUS ABB=ON L7 OR L10 OR L12
L17 86001 SEA FILE=REGISTRY ABB=ON 103.10/RID
L18 3454 SEA FILE=REGISTRY ABB=ON L17 AND 1-20/SI
L19 1401 SEA FILE=HCAPLUS ABB=ON L18
L20 6 SEA FILE=HCAPLUS ABB=ON L19 AND ?MEMBRANE?
L21 54656 SEA FILE=HCAPLUS ABB=ON L17
L22 3805 SEA FILE=HCAPLUS ABB=ON L21 AND (?SILOXANE? OR ?SILYL? OR
?SILANE?)
L23 32 SEA FILE=HCAPLUS ABB=ON L22 AND ?MEMBRANE?
L25 17 SEA FILE=HCAPLUS ABB=ON L23 AND (POLYMER? OR PLASTIC?)/SC,SX
L26 18 SEA FILE=HCAPLUS ABB=ON L20 OR L25
L27 8 SEA FILE=HCAPLUS ABB=ON (L26 OR L13) NOT L13

*claim 1
norbornene
ring identified - but no
bonds specified*

8 CA references with utility

=> D L27 ALL 1-8 HITSTR

L27 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2002 ACS

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

AN 1999:249029 HCAPLUS
 DN 130:286821
 TI Stable cosmetic water-in-oil-in-water emulsion containing carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid)
 IN Afriat, Isabelle; Chanvin, Florence; Guiramand, Carole
 PA L'Oreal, Fr.
 SO Eur. Pat. Appl., 17 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 IC ICM A61K007-00
 ICS A61K007-48
 CC 62-4 (Essential Oils and Cosmetics)
 Section cross-reference(s): 35, 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 908170	A1	19990414	EP 1998-402250	19980911
	EP 908170	B1	20000531		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2769224	A1	19990409	FR 1997-12364	19971003
	FR 2769224	B1	20000128		
	AT 193437	E	20000615	AT 1998-402250	19980911
	ES 2149039	T3	20001016	ES 1998-402250	19980911
	CA 2246583	AA	19990403	CA 1998-2246583	19981002
	JP 11180824	A2	19990706	JP 1998-281760	19981002
	JP 3011696	B2	20000221		
	BR 9804154	A	20000328	BR 1998-4154	19981002
	US 6149900	A	20001121	US 1998-166125	19981005
PRAI	FR 1997-12364	A	19971003		
AB	The title cosmetic emulsion which are used for cleansing or protection of skin, mucosa and hair are disclosed. Poly(2-acrylamido-2-methylpropane sulfonic acid) was crosslinked with trimethylolpropane triacrylate and neutralized with ammonia. Formulation of a triple emulsion contg. 2% of above polymer is disclosed.				
ST	stability cosmetic emulsion carboxylic acid polymer; crosslinking polyacrylamidomethylpropane sulfonic acid cosmetic emulsion				
IT	Fats and Glyceridic oils, biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(animal; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))				
IT	Polyoxyalkylenes, biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(di-Me, Me hydrogen polysiloxane-, alkyl derivs.; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))				
IT	Polysiloxanes , biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(di-Me, Me hydrogen, polyoxyalkylene-, alkyl derivs.; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))				
IT	Cosmetics				
	(emulsions; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))				
IT	Polysiloxanes , biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES				

- (Uses)
(fluoro; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hydroxy; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT **Polysiloxanes**, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(phenyltrimethyl; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(polyhydric; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT Antioxidants
Deodorants
Dyes
Hair preparations
Mucous **membrane**
Perfumes
Preservatives
Sequestering agents
Solvents
Sunscreens
(stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT Enzymes, biological studies
Isoalkanes
Lipids, biological studies
Paraffin oils
Polysiloxanes, biological studies
Vitamins
Waxes
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT Fats and Glyceridic oils, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(vegetable; stable cosmetic emulsion contg. carboxylic acid polymers and crosslinked poly(acrylamidomethylpropane sulfonic acid))
- IT 50-21-5, biological studies 50-81-7, Ascorbic acid, biological studies
57-13-6, Urea, biological studies 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 76-93-7, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies
80-69-3, Tartronic acid 87-69-4, biological studies 90-64-2, Mandelic acid 110-17-8, 2-Butenedioic acid (2E)-, biological studies 127-17-3, Pyruvic acid, biological studies 153-18-4, Rutin 302-79-4, Retinoic acid 331-39-5 501-30-4, Kojic acid 526-95-4, D-Gluconic acid 544-57-0, 2-Hydroxytetracosanoic acid 547-64-8, Methyl lactate 600-15-7, 2-Hydroxybutanoic acid 617-31-2, 2-Hydroxypentanoic acid 617-73-2, 2-Hydroxyoctanoic acid 629-22-1, 2-Hydroxyoctadecanoic acid 636-69-1, 2-Hydroxyheptanoic acid 685-73-4, Galacturonic acid 764-67-0, 2-Hydroxyhexadecanoic acid 828-01-3 2507-55-3, 2-Hydroxytetradecanoic acid 2984-55-6, 2-Hydroxydodecanoic acid

5393-81-7, 2-Hydroxydecanoic acid 6064-63-7, 2-Hydroxyhexanoic acid
6556-12-3, Glucuronic acid 6915-15-7, Malic acid 7664-38-2D,
Phosphoric acid, glycosylated derivs., biological studies 9016-00-6,
Polydimethylsiloxane 15896-36-3, 2-Hydroxynonanoic acid
16742-48-6, 2-Hydroxyeicosanoic acid 17812-24-7, Ribonic acid
17941-34-3, Aleuritic acid 19790-86-4, 2-Hydroxyundecanoic acid
31900-57-9, **Polydimethylsiloxane 191226-60-5**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(stable cosmetic emulsion contg. carboxylic acid polymers and
crosslinked poly(acrylamidomethylpropane sulfonic acid))

IT 202000-47-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)

(stable cosmetic emulsion contg. carboxylic acid polymers and
crosslinked poly(acrylamidomethylpropane sulfonic acid))

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Nadaud, J; US 5567426 A 1996 HCAPLUS
- (2) Oreal; EP 0779071 A 1997 HCAPLUS
- (3) Oreal; EP 0832645 A 1998 HCAPLUS
- (4) Shiseido Co Ltd; EP 0750899 A 1997 HCAPLUS

IT **191226-60-5**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

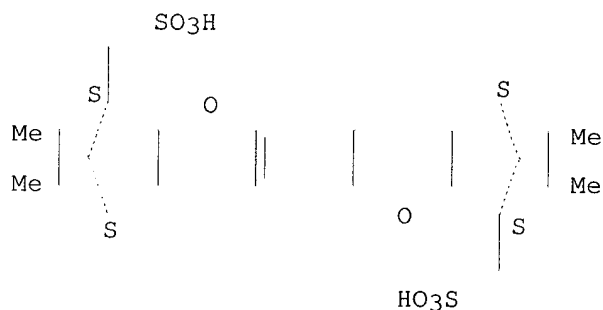
(stable cosmetic emulsion contg. carboxylic acid polymers and
crosslinked poly(acrylamidomethylpropane sulfonic acid))

RN 191226-60-5 HCAPLUS

CN Bicyclo[2.2.1]heptane-1-methanesulfonic acid, 3,3'-(1,4-
phenylenedimethyldiene)bis[7,7-dimethyl-2-oxo-, (1S,1'S,4S,4'S)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



L27 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:587628 HCAPLUS

DN 127:262878

TI Preparation of optically active .beta.-blockers by using optical
resolution **membrane**

IN Oikawa, Eizo; Aoki, Toshiki; Kaneko, Takashi

PA Daicel Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

IC ICM C07B057-00
ICS C07B057-00; C07C213-10; C07C217-30; C07F007-08; C07F007-12;
C08G061-08; C07M007-00

CC 30-10 (Terpenes and Terpenoids)
Section cross-reference(s): 1, 24

FAN.CNT 1

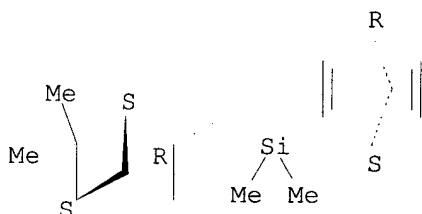
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 09227416	A2	19970902	JP 1996-29436	19960216
OS	CASREACT 127:262878; MARPAT 127:262878				
AB	Optically active .beta.-blockers are prepd. by optical resoln. of their racemates by using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane . A soln. of (RS)-propranolol in MeOH was supplied to a cell sepd. by (+)-poly[(dimethylpinanylsilyl)norbornadiene] membrane and permeated through the membrane to give (R)-propranolol with 54.6% ee.				
ST	beta blocker optical resoln membrane polydimethylpinanylsilylnorbornadiene; propranolol optical resoln polydimethylpinanylsilylnorbornadiene membrane permeation				
IT	Antihypertensives Permeation separation Resolution (separation) .beta.-Adrenoceptor antagonists (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	18497-13-7 RL: CAT (Catalyst use); USES (Uses) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	525-66-6, Propranolol RL: PEP (Physical, engineering or chemical process); PROC (Process) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	5051-22-9P, (R)-Propranolol RL: PUR (Purification or recovery); PREP (Preparation) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	121-46-0, Norbornadiene		1066-35-9, Dimethylchlorosilane		18172-67-3
	RL: RCT (Reactant) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	177696-00-3P 196391-66-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	196391-67-0P RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				
IT	196391-66-9P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) (prepn. of optically active .beta.-blockers by optical resoln. using optically active poly[(dimethylpinanylsilyl)norbornadiene] membrane)				

membrane)

RN 196391-66-9 HCAPLUS

CN Silane, bicyclo[2.2.1]hepta-2,5-dien-2-yl[(6,6-dimethylbicyclo[3.1.1]hept-2-yl)methyl]dimethyl-, [1S-[1.alpha.,2.beta.(1R*,4S*),5.alpha.]]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 196391-67-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of optically active .beta.-blockers by optical resolu. using
optically active poly[(dimethylpinanylsilyl)norbornadiene])**membrane)**

RN 196391-67-0 HCAPLUS

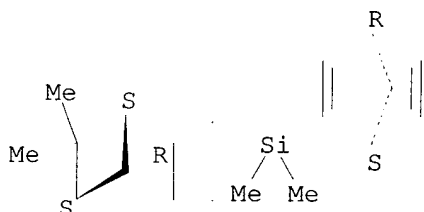
CN Silane, bicyclo[2.2.1]hepta-2,5-dien-2-yl[(6,6-dimethylbicyclo[3.1.1]hept-2-yl)methyl]dimethyl-, [1S-[1.alpha.,2.beta.(1R*,4S*),5.alpha.]]-,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 196391-66-9

CMF C19 H30 Si

Absolute stereochemistry. Rotation (+).



L27 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:371881 HCAPLUS

DN 127:35531

TI UV-curable tape material compositions giving transparent antiblocking
low-friction cured products for optical fibers

IN Nishimura, Mitsuhiko; Kamimura, Setsu; Kosakai, Shohei; Asano, Masatoshi

PA Takeda Chemical Industries, Ltd., Japan; Shin-Etsu Chemical Industry Co.,
Ltd.

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F290-06

ICS C08F290-06; C09J004-00; C09J004-02; G02B006-44

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42, 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09100326	A2	19970415	JP 1996-143690	19960514
PRAI	JP 1995-216720		19950802		

AB Title compns., also useful for coatings, contain (meth)acrylate oligomers, polymerizable double bond-contg. reactive diluents, photopolymn. initiators, and spherical silicone gel particles with av. particle size 0.1-5 .mu.m and whose silanol groups are modified. Their cured products are also claimed. Thus, 2 parts Me3Si-capped spherical poly(**methyltrimethoxysilane**) granules were kneaded with 100 parts a compn. comprising urethane acrylate oligomer [manufd. from poly(tetramethylene glycol), 2,4-TDI, and 2-hydroxyethyl acrylate] 55, SA 1002 (tricyclodecanedimethanol diacrylate) 15, M 210 (bisphenol A-ethylene oxide adduct diacrylate) 10, N-vinylpyrrolidone 10, isobornyl acrylate 10, and 1-hydroxycyclohexyl Ph ketone 3 parts], cast on a glass plate, and irradiated with UV ray to give a transparent antiblocking film with dynamic friction coeff. 0.25 and Young's modulus 92 kg/mm2.

ST optical fiber tape silanol modified silicone; acrylic polyurethane tape antiblocking transparency; UV curable tape **methylsilylated polymethyltrimethoxysilane** granule; coating acrylic polyurethane **trimethylsilylated** silicone

IT Antiblocking agents
Optical fibers
Transparent films
(UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)

IT Coating materials
(UV-curable; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)

IT Polyurethanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene-, acrylic; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)

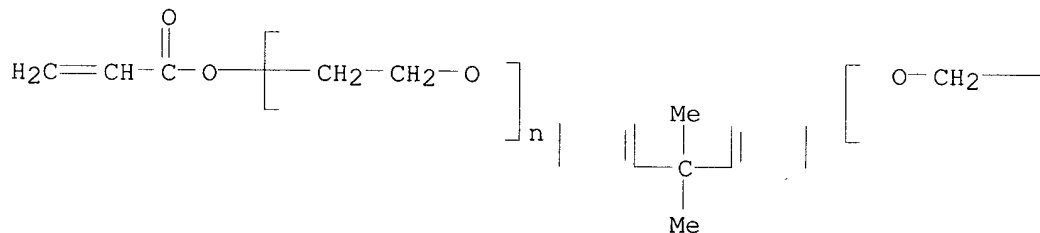
IT Silsesquioxanes
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(**silyl**-capped, spherical granules; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)

IT **Polysiloxanes**, uses
RL: MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**silyl**-capped, spherical granules; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)

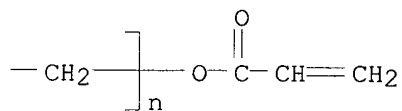
IT **189289-75-6P**
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for

- optical fibers)
- IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone
 RL: CAT (Catalyst use); USES (Uses)
 (catalyst; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)
- IT 999-97-3DP, Hexamethyldisilazane, reaction products with **methyltrimethoxysilane** homopolymer 20180-31-8DP, reaction products with **methyltrimethoxysilane** homopolymer 25498-03-7DP, **Methyltrimethoxysilane** homopolymer, **trimethylsilyl-** or **dimethylphenylsilyl-**terminated 153315-80-1DP, **Methyltrimethoxysilane** homopolymer, ladder stru, **trimethylsilyl-** and **dimethylphenylsilyl-**terminated
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (spherical granules; UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)
- IT 189289-75-6P
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (UV-curable tape material compns. contg. modified silicone gel particles giving transparent antiblocking **membranes** for optical fibers)
- RN 189289-75-6 HCAPLUS
- CN 2-Propenoic acid, (octahydro-4,7-methano-1H-indene-5,?-diyl)bis(methylene) ester, polymer with 2,4-diisocyanato-1-methylbenzene, 1-ethenyl-2-pyrrolidinone, .alpha.-hydro-.omega.-hydroxypoly(oxy-1,4-butanediyl), 2-hydroxyethyl 2-propenoate, .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate (9CI) (CA INDEX-----NAME)
- CM 1
- CRN 64401-02-1
 CMF (C2 H4 O)n (C2 H4 O)n C21 H20 O4
 CCI PMS

PAGE 1-A



PAGE 1-B



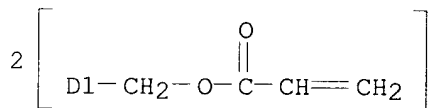
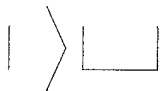
CM 2

CRN 42594-17-2

CMF C18 H24 O4

CCI IDS

CDES *

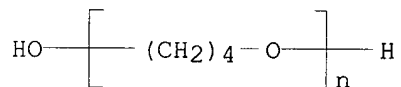


CM 3

CRN 25190-06-1

CMF (C4 H8 O)_n H2 O

CCI PMS



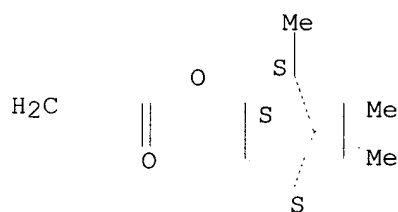
CM 4

CRN 5888-33-5

CMF C13 H20 O2

CDES 2:EXO

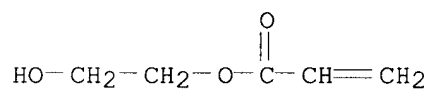
Relative stereochemistry.



CM 5

CRN 818-61-1

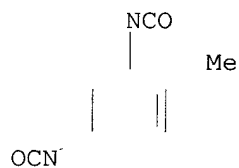
CMF C5 H8 O3



CM 6

CRN 584-84-9

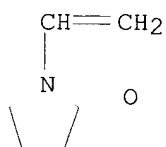
CMF C9 H6 N2 O2



CM 7

CRN 88-12-0

CMF C6 H9 N O



L27 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1997:71741 HCAPLUS

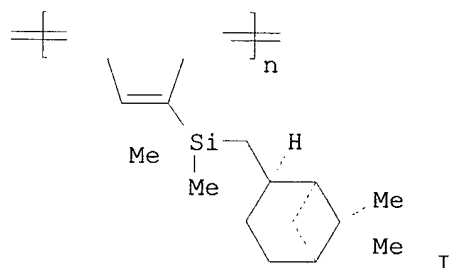
DN 126:186334

TI Enantioselective permeation of racemates through a solid
 (+)-poly{2-[dimethyl(10-pinanyl)silyl]norbornadiene}
 membrane

AU Aoki, Toshiki; Ohshima, Makoto; Shinohara, Ken-ichi; Kaneko, Takashi; ..

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

Oikawa, Eizo
 CS Graduate School Science and Technology, Niigata Univ., Niigata, 950-21, Japan
 SO Polymer (1997), 38(1), 235-238
 CODEN: POLMAG; ISSN: 0032-3861
 PB Elsevier
 DT Journal
 LA English
 CC 34-2 (Amino Acids, Peptides, and Proteins)
 Section cross-reference(s): 26, 37
 GI



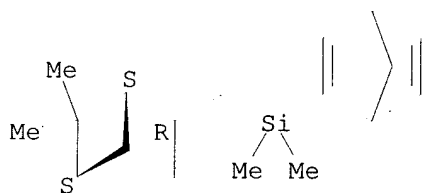
- AB Novel title norbornadiene polymer I having optically active pinanyl groups in the pendant groups was synthesized as an optical resolvable membrane material. The resulting polymer membrane showed highly enantioselective permeability for racemic propranolol used as a medicine. The permeability of tryptophan was much higher than that of a (+)-poly[1-[dimethyl(10-pinanyl)silyl]-1-propyne] membrane reported previously.
- ST polydimethylpinanylsilylnorbornadiene membrane prep enantioselective permeation; tryptophan stereoselective permeation pinanylsilylnorbornadiene polymer membrane; propranolol stereoselective permeation pinanylsilylnorbornadiene polymer membrane
- IT Membranes (nonbiological)
 Resolution (separation)
 (enantioselective permeation of racemates through a solid poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
- IT Permeation
 (stereoselective; enantioselective permeation of racemates through a solid poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
- IT 187337-21-9P
 RL: NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (enantioselective permeation of racemates through a solid poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
- IT 73-22-3P, (S)-Tryptophan, preparation 90-64-2P, Mandelic acid 98-85-1P, sec-Phenethyl alcohol 153-94-6P, (R)-Tryptophan 4199-09-1P, (S)-Propranolol 5051-22-9P, (R)-Propranolol
 RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
 (enantioselective permeation of racemates through a solid poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
- IT 54-12-6P, Tryptophan 525-66-6P, (+-)-Propranolol
 RL: PUR (Purification or recovery); PREP (Preparation)
 (enantioselective permeation of racemates through a solid

poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
IT 121-46-0, Norbornadiene 177696-00-3
RL: RCT (Reactant)
(enantioselective permeation of racemates through a solid
poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
IT 187337-20-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(enantioselective permeation of racemates through a solid
poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
IT 187337-21-9P
RL: NUU (Other use, unclassified); PRP (Properties); SPN (Synthetic
preparation); PREP (Preparation); USES (Uses)
(enantioselective permeation of racemates through a solid
poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
RN 187337-21-9 HCAPLUS
CN Silane, bicyclo[2.2.1]hepta-2,5-dien-2-yl[(6,6-dimethylbicyclo[3.1.1]hept-
2-yl)methyl]dimethyl-, [1S-(1.alpha.,2.beta.,5.alpha.)]-[partial]-,
homopolymer (9CI) (CA INDEX NAME)

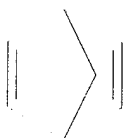
CM 1

CRN 187337-20-8
CMF C19 H30 Si

Absolute stereochemistry.

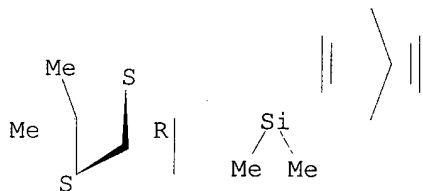


IT 121-46-0, Norbornadiene
RL: RCT (Reactant)
(enantioselective permeation of racemates through a solid
poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
RN 121-46-0 HCAPLUS
CN Bicyclo[2.2.1]hepta-2,5-diene (9CI) (CA INDEX NAME)



IT 187337-20-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(enantioselective permeation of racemates through a solid
poly[dimethyl(pinanyl)silylnorbornadiene] membrane)
RN 187337-20-8 HCAPLUS
CN Silane, bicyclo[2.2.1]hepta-2,5-dien-2-yl[(6,6-dimethylbicyclo[3.1.1]hept-
2-yl)methyl]dimethyl-, [1S-(1.alpha.,2.beta.,5.alpha.)]-[partial]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



L27 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1990:84264 HCAPLUS

DN 112:84264

TI Plastic lenses for eye glasses

IN Kadowaki, Shinichiro

PA Hoya Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G02B001-04

ICS B29D011-00; C08F220-14

ICI C08F220-14, C08F220-18

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37

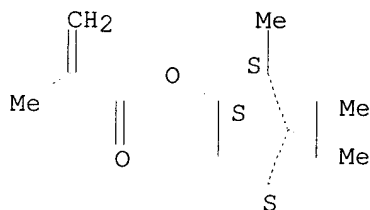
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 01163703	A2	19890628	JP 1988-240446	19880926
PRAI	JP 1987-246221		19870930		
AB	The lenses contain copolymers of Me methacrylate, isobornyl methacrylate, and cyclohexyl methacrylate (50-90:5-30:5-30 wt. %). The surface is coated with a hardening or other functional membrane (e.g. silicone membrane). The lenses show dimensional accuracy due to low hygroscopicity and are phys. stable. The lenses are suitable for staining by the warm water treatment method.				
ST	methacrylate polymer lens				
IT	Coating materials (oxides and siloxanes for eyeglasses)				
IT	Lenses (eyeglass, methacrylic copolymers for)				
IT	1314-23-4, Zirconium dioxide, biological studies 7631-86-9, Silicon dioxide, biological studies 125395-76-8 RL: BIOL (Biological study) (acrylate polymer lenses coated with, for eyeglasses)				
IT	125395-73-5P 125395-74-6P 125395-75-7P RL: PREP (Preparation) (prepn. of, for eyeglass lenses)				
IT	125395-73-5P 125395-74-6P RL: PREP (Preparation) (prepn. of, for eyeglass lenses)				
RN	125395-73-5 HCAPLUS				
CN	2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with methyl 2-methyl-2-propenoate and exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)				

CM 1

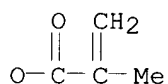
CRN 7534-94-3
 CMF C14 H22 O2
 CDES 2:EXO

Relative stereochemistry.



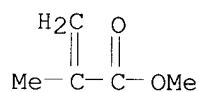
CM 2

CRN 101-43-9
 CMF C10 H16 O2



CM 3

CRN 80-62-6
 CMF C5 H8 O2

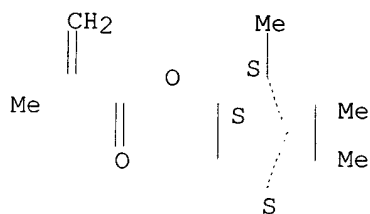


RN 125395-74-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with methyl
 2-methyl-2-propenoate, methyl 2-propenoate and exo-1,7,7-
 trimethylbicyclo[2.2.1]hept-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

CRN 7534-94-3
 CMF C14 H22 O2
 CDES 2:EXO

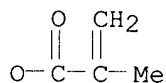
Relative stereochemistry.



CM 2

CRN 101-43-9

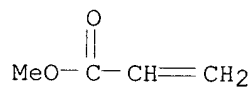
CMF C10 H16 O2



CM 3

CRN 96-33-3

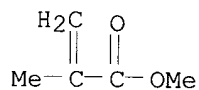
CMF C4 H6 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



L27 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1987:555781 HCAPLUS

DN 107:155781

TI Gas permeable **membranes**

IN Kawahito, Midori; Saito, Yukihiro; Asakawa, Shiro

PA Matsushita Electric Industrial Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

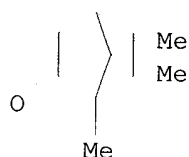
CODEN: JKXXAF

DT Patent

KATHLEEN FULLER EIC 1700/LAW LIBRARY 308-4290

LA Japanese
 IC ICM B01D053-22
 CC 38-3 (Plastics Fabrication and Uses)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62042724	A2	19870224	JP 1985-182057	19850820
AB	<p>Title membranes, useful for O sepn. from air, are composed of (A) base materials contg. acetylene polymers mono- and/or di-substituted with halo, alkyl, haloalkyl, Ph, or organosilyl groups and (B) plasticizers with O affinity. A 180-.mu. poly(trimethylsilylpropyne) (av. mol. wt. 1.2 .times. 106) film was covered over a glass lab. dish contg. di-Bu phthalate (I), then the dish was vacuum dried at 50.degree. for 3 h. The film contained 8% I and showed O permeability 4.3 .times. 10-8 cm3-cm/cm2-s-cm Hg and O/N sepn. factor 3.3.</p>				
ST	gas permeation membrane polyacetylene; oxygen permselective membrane polyacetylene; plasticizer blend polyacetylene membrane permselective				
IT	Membranes				
IT	(for oxygen enrichment from air, polyacetylenes contg. plasticizers as)				
IT	Polyacetylenes, uses and miscellaneous				
	RL: USES (Uses)				
	(membranes, contg. plasticizers, for oxygen enrichment from air)				
IT	Plasticizers				
	(polyacetylene membranes contg., for oxygen enrichment from air)				
IT	51730-68-8, Poly(tert-butylacetylene)			53621-07-1, Poly(1-phenyl-1-propyne)	
	84892-77-3, Poly(3-octyne)			87842-32-8, Poly(trimethylsilylpropyne)	
	RL: USES (Uses)				
	(membranes, contg. plasticizers, for oxygen enrichment from air)				
IT	84-66-2, Diethyl phthalate		84-74-2, Dibutyl phthalate	85-68-7, Butyl benzyl phthalate	
	120-55-8, Diethylene glycol dibenzoate		122-62-3, Di(2-ethylhexyl) sebacate	126-73-8, Tributyl phosphate, uses and miscellaneous	
	1330-78-5, Tricresyl phosphate				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(plasticizer, polyacetylene membranes contg., for oxygen enrichment from air)				
IT	76-22-2, Camphor		115-86-6, Triphenyl phosphate		
	RL: MOA (Modifier or additive use); USES (Uses)				
	(plasticizers, polyacetylene membranes contg., for oxygen enrichment from air)				
IT	7782-44-7, Oxygen, uses and miscellaneous				
	RL: USES (Uses)				
	(sepn. of, from air, polyacetylene membranes contg. plasticizers for)				
IT	76-22-2, Camphor				
	RL: MOA (Modifier or additive use); USES (Uses)				
	(plasticizers, polyacetylene membranes contg., for oxygen enrichment from air)				
RN	76-22-2 HCAPLUS				
CN	Bicyclo[2.2.1]heptan-2-one, 1,7,7-trimethyl- (9CI) (CA INDEX NAME)				



L27 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2002 ACS
 AN 1973:467278 HCAPLUS
 DN 79:67278
 TI High-temperature **membranes** comprising polycarbonate-
polydiorganosiloxane copolymers
 IN Kantor, Simon William; Juliano, Peter Carmen
 PA General Electric Co.
 SO Ger. Offen., 23 pp.
 CODEN: GWXXBX

DT Patent
 LA German
 IC C08G
 CC 36-3 (**Plastics** Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2257206	A1	19730530	DE 1972-2257206	19721122
	US 3781378	A	19731225	US 1971-201973	19711124
	GB 1382365	A	19750129	GB 1972-49613	19721027
	IT 971132	A	19740430	IT 1972-31990	19721123
	NL 7216015	A	19730528	NL 1972-16015	19721124
	FR 2161107	A1	19730706	FR 1972-41971	19721124
	JP 48064199	A2	19730905	JP 1972-117265	19721124
PRAI	US 1971-201973		19711124		
AB	Membranes with improved phys. properties and heat distortion temps. were prepd. from block copolymers contg. 25-99% siloxane units and 1-75% polycarbonate units based on 9,9-bis(4- hydroxyphenyl)fluorene (I) [3236-71-3] or 2,2- bis(hydroxyphenyl)norbornanes. Thus, Cl-terminated polydimethylsiloxane 14.31, I 10, CH ₂ Cl ₂ 37.5, and pyridine 10.9 were treated with COCl ₂ at 0.74 part/min until pyridine-HCl began pptg. and at 0.06 part/min until the viscosity reached a max, giving a siloxane -polycarbonate block polymer (II) with intrinsic viscosity 0.93 dl/g (CHCl ₃ , 30.deg.). II had tensile strength 254 and 78 kg/cm ² at 25 and 100.deg., resp., compared with 204 and 6.5, resp., for a similar block polymer prepd. from bisphenol A. II could be sterilized in an autoclave.				
ST	siloxane polycarbonate block polymer; membrane siloxane block polymer; fluorenebisphenol block polycarbonate				
IT	Siloxanes and Silicones, preparation RL: PREP (Preparation) (block polymers with polycarbonates, with improved heat distortion temp.)				
IT	Membranes (polycarbonate- siloxane block polymers, with improved heat distortion temp.)				
IT	Carbonic dichloride, polymers with fluorene or norbornane bisphenols and siloxanes Phenol, 4,4'-(9H-fluoren-9-ylidene)bis-, polymers with phosgene and siloxanes				

Phenol, 4,4'-bicyclo[2.2.1]hept-2-ylidenebis[2,6-dichloro-, polymers with
phosgene and **siloxanes**

RL: USES (Uses)

(block, with improved heat distortion temp.)

IT 42913-18-8

RL: USES (Uses)

(block, with improved heat distortion temp.)

IT 42913-18-8

RL: USES (Uses)

(block, with improved heat distortion temp.)

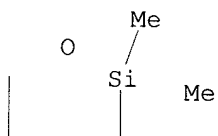
RN 42913-18-8 HCAPLUS

CN Carbonic dichloride, polymer with 4,4'-bicyclo[2.2.1]hept-2-
ylidenebis[phenol], 2,2-dimethyl-1-oxa-2-silacyclohexane and
octamethylcyclotetrasiloxane (9CI) (CA INDEX NAME)

CM 1

CRN 5833-47-6

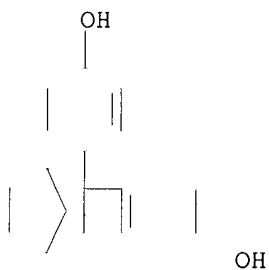
CMF C6 H14 O Si



CM 2

CRN 1943-96-0

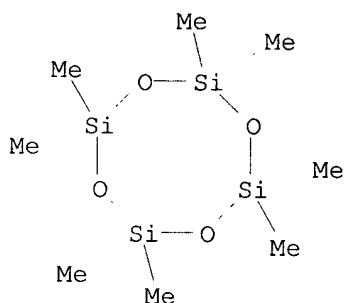
CMF C19 H20 O2



CM 3

CRN 556-67-2

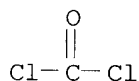
CMF C8 H24 O4 Si4



CM 4

CRN 75-44-5

CMF C Cl2 O



L27 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2002 ACS

AN 1972:565561 HCAPLUS

DN 77:165561

TI Treating polymeric films for use as separating **membranes** with low-energy electron beams

IN Osterholtz, Frederick David

PA Union Carbide Corp.

SO Ger. Offen., 106 pp.

CODEN: GWXXBX

DT Patent

LA German

IC B01D; C08F

CC 36-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2204312	A1	19720810	DE 1972-2204312	19720126
	US 3846521	A	19741105	US 1971-112125	19710203
	CA 959001	A1	19741210	CA 1972-131561	19720104
	FR 2124414	A5	19720922	FR 1972-3526	19720202
	FR 2124414	B1	19750829		
	GB 1365424	A	19740904	GB 1972-4793	19720202
PRAI	US 1971-112125	A	19710203		

AB A process and app. for treating polymeric films with low energy electron beams provided films with increased selective sepn. for .geq. 1 gas that were useful for sepg. and (or) concentrating gases. Thus, a bisphenol A polycarbonate [25037-45-0] film was exposed, in a specially designed app., at 3-7 .tim. 10⁻⁵ torr to a low energy electron beam (with potential 10-3000 V) to give a film with permeability coeff. for He and CH₄ 1280 .tim. 10⁻¹² and < 2 .tim. 10⁻¹² cm³(STP)-cm/sec-cm²-cm Hg, resp. The untreated film had permeability coefficient for He and CH₄ 1200-1550 .tim. 10⁻¹² ad 33-45 .tim. 10⁻¹², resp. The permeability ratio of He to CH₄ was > 640 as compared to 33-46 for untreated film. Similar results were

- achieved with a variety of polymer films including cellulose acetate [9004-35-7], polyethylene [9002-88-4], ethylene-vinyl acetate polymer [24937-78-8], 2,2,4,4-tetramethyl-1,3-cyclobutanediol polycarbonate [25722-32-1], and **polysiloxane** films.
- ST permselective **membrane** polymer; cellulose permselective **membrane**; polycarbonate permselective **membrane**; polyolefin permselective **membrane**; vinyl polymer permselective **membrane**; acrylic polymer permselective **membrane**; polyester permselective **membrane**; polyimide permselective **membrane**; gas sepn polymeric **membrane**
- IT **Siloxanes** and Silicones, uses and miscellaneous
RL: USES (Uses)
(block polymers with polyarylene polyether sulfone, permselective manuf. from films of, by treatment with low-energy electron beams)
- IT Electron beam, chemical and physical effects
(on plastic films, in permselective **membrane** manuf.)
- IT Polyimides
RL: USES (Uses)
(permselective **membrane** manuf. from films of Kapton 50H, by treatment with low-energy electron beams)
- IT Gases
(permselective **membranes** for sepn. of, manuf. of, by treatment of polyameric films with low-energy electron beams)
- IT Plastics, film
RL: USES (Uses)
(permselective **membranes**, manuf. of, with electron beams)
- IT **Membranes**
(permselective, manuf. of, from polymeric films, by treatment with low-energy electron beams)
- IT Sulfones
RL: USES (Uses)
(poly-, block polymers with **polysiloxanes**, permselective **membrane** manuf. from films of, by treatment with low-energy electron beams)
- IT Ethene, chlorotrifluoro-, polymers
RL: USES (Uses)
(permselective **membrane** manuf. from film of Aclar, by treatment with low-energy electron beams)
- IT 9003-07-0P
RL: PREP (Preparation)
(permselective **membrane** manuf. from film of Clysar, by treatment with low-energy electron beam)
- IT 25134-01-4P
RL: PREP (Preparation)
(permselective **membrane** manuf. from film of PPO, by treatment with low-energy electron beam)
- IT 9002-88-4P 9003-53-6P 9004-35-7P 9004-36-8P 9004-57-3P
24937-78-8P 25037-45-0P 25135-51-7P 25548-96-3P **26007-14-7P**
25038-59-9P, uses and miscellaneous
RL: PREP (Preparation)
(permselective **membrane** manuf. from film of, by treatment with low-energy electron beams)
- IT 9011-14-7P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of Korad, by treatment with low-energy electron beam)
- IT 25750-82-7P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of Surlyn, by treatment with low-energy electron beams)

IT 25068-26-2P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of TPX, by
treatment with low-energy electron beam)

IT 24981-14-4P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of Tedlar PVF, by
treatment with electron-energy electron beams)

IT 25067-11-2P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of Teflon FEP, by
treatment with low-energy electron beam)

IT 9002-86-2P 9003-28-5P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of, by treatment
with low-energy electron beam)

IT 9012-09-3P 37280-30-1P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films of, by treatment
with low-energy electron beams)

IT 9002-84-0P
RL: PREP (Preparation)
(permselective **membrane** manuf. from films, by treatment with
low-energy electron beam)

IT **24979-94-0P**
RL: PREP (Preparation)
(permselective **membrane**, manuf. of, by electron beams)

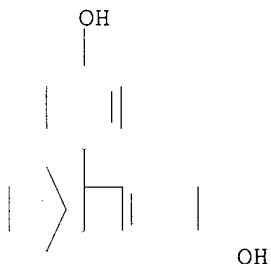
IT 24936-68-3P 24938-67-8P 25038-54-4P 25722-32-1P
RL: PREP (Preparation)
(permselective **membrane**, manuf. of, with electron beams)

IT **26007-14-7P**
RL: PREP (Preparation)
(permselective **membrane** manuf. from film of, by treatment
with low-energy electron beams)

RN 26007-14-7 HCAPLUS

CN Phenol, 4,4'-bicyclo[2.2.1]hept-2-ylidenebis-, polymer with carbonic acid
(9CI) (CA INDEX NAME)

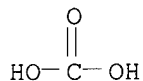
CM 1

CRN 1943-96-0
CMF C19 H20 O2

CM 2

CRN 463-79-6

CMF C H2 O3



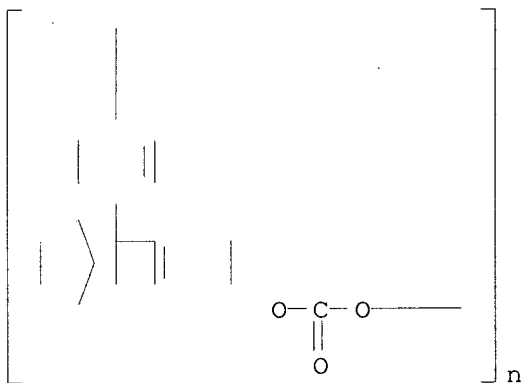
IT 24979-94-0P

RL: PREP (Preparation)

(permselective **membrane**, manuf. of, by electron beams)

RN 24979-94-0 HCAPLUS

CN Poly(oxy carbonyloxy-1,4-phenylenebicyclo[2.2.1]hept-2-ylidene-1,4-phenylene) (9CI) (CA INDEX NAME)

*Text search*

=> D QUE

L4 26517 SEA FILE=REGISTRY ABB=ON 103.10.3/RID
 L5 1307 SEA FILE=REGISTRY ABB=ON L4 AND 1-20/SI
 L6 669 SEA FILE=HCAPLUS ABB=ON L5
 L7 3 SEA FILE=HCAPLUS ABB=ON L6 AND ?MEMBRANE?
 L8 21688 SEA FILE=HCAPLUS ABB=ON L4
 L9 486 SEA FILE=HCAPLUS ABB=ON L8 AND ?SILOXAN?
 L10 4 SEA FILE=HCAPLUS ABB=ON L9 AND ?MEMBRANE?
 L11 1626 SEA FILE=HCAPLUS ABB=ON L8 AND (?SILYL? OR ?SILANE?)
 L12 11 SEA FILE=HCAPLUS ABB=ON L11 AND ?MEMBRANE?
 L13 13 SEA FILE=HCAPLUS ABB=ON L7 OR L10 OR L12
 L17 86001 SEA FILE=REGISTRY ABB=ON 103.10/RID
 L18 3454 SEA FILE=REGISTRY ABB=ON L17 AND 1-20/SI
 L19 1401 SEA FILE=HCAPLUS ABB=ON L18
 L20 6 SEA FILE=HCAPLUS ABB=ON L19 AND ?MEMBRANE?
 L21 54656 SEA FILE=HCAPLUS ABB=ON L17
 L22 3805 SEA FILE=HCAPLUS ABB=ON L21 AND (?SILOXANE? OR ?SILYL? OR ?SILANE?)
 L23 32 SEA FILE=HCAPLUS ABB=ON L22 AND ?MEMBRANE?
 L25 17 SEA FILE=HCAPLUS ABB=ON L23 AND (POLYMER? OR PLASTIC?)/SC, SX
 L26 18 SEA FILE=HCAPLUS ABB=ON L20 OR L25
 L28 19505 SEA FILE=HCAPLUS ABB=ON ?NORBORNYL? OR ?NORBORNEN?
 L29 1552 SEA FILE=HCAPLUS ABB=ON L28 AND (?SILOXANE? OR ?SILYL? OR ?SILANE?)
 L30 13 SEA FILE=HCAPLUS ABB=ON L29 AND ?MEMBRANE?
 L31 1 SEA FILE=HCAPLUS ABB=ON (L30 OR L26 OR L13) NOT (L26 OR L13)

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only one additional reference

=> D ALL L31

L31 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:394264 HCAPLUS

DN 129:55153

TI Microporous **membranes** with good chemical resistance and process for their production

IN Shinagawa, Yukio; Ohtani, Sumio

PA Fuji Photo Film Co., Ltd., Japan; Shinagawa, Yukio; Ohtani, Sumio

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM B01D071-44

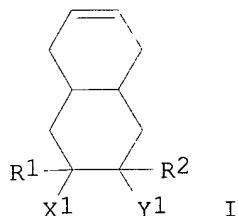
ICS B29C041-12

CC 38-2 (Plastics Fabrication and Uses)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9824540	A1	19980611	WO 1997-JP4406	19971202
	W: JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 922486	A1	19990616	EP 1997-913497	19971202
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 6126825	A	20001003	US 1998-126713	19980731
PRAI	JP 1996-321821	A	19961202		
	JP 1996-321822	A	19961202		
	WO 1997-JP4406	W	19971202		

GI



AB The title **membranes** which are combustible without release of toxic substances, particularly useful for microfiltration, are manufd. from polymers obtained by the ring-opening polymn. of I (R1, R2 = H, C1-10 hydrocarbyl groups; X1, Y1 = H, C1-10 hydrocarbyl groups, hydrocarbyl groups substituted with halogen or halogen-contg. group, or terminated with carboxylate esters or salts, CN, amido, **silyl** or hydrocarbyloxy groups; X1 and Y2 together can form dicarboxylic anhydride or imide groups), or I and **norbornene** like compds., and having the JIS-K 3832 std. bubble point (using EtOH) of 10-1000 kPa. A process for the prodn. of **membranes** comprises casting a soln. of the polymers above in their solvent on a surface to form a film, rapidly cooling the film, and extg. the solvent from the resulting film with an extn. solvent in which the polymers are insol. to obtain a microporous **membrane**. Thus, a **membrane** was produced in this manner from a **norbornene** resin (Arton G) dissolved in mineral oil and

extd. with isopropanol.

ST cycloolefin polymer microporous **membrane** manuf; ring opening
cycloolefin polymer **membrane**; microfiltration **membrane**
ring opening cycloolefin polymer

IT Ultrafilters
(microporous **membranes** with good chem. resistance and process
for prodn.)

IT **Membranes**, nonbiological
(microporous; microporous **membranes** with good chem.
resistance and process for prodn.)

IT 156929-72-5, Arton G
RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(microporous **membranes** with good chem. resistance and process
for prodn.)